BARCLAYS

Interest Rates Research

26 October 2017

Global Rates Weekly

A dovish trick

- **In the US, we recommend initiating 3s10s curve flatteners, given the reduced risk of a dovish shift in the Fed's reaction function and of a taper tantrum in Europe. Short positioning also favors the flattener recommendation, in our view. Separately, at the next refunding meeting, we believe the Treasury is likely to keep coupon auction sizes unchanged.**
- **In Europe, despite ECB policy revision broadly in line with consensus, Draghi projected a very careful tone, making the QE reduction announcement appear dovish. We think next week's Bank of England and new Fed Chair decisions are still a bearish risk. Therefore, we are holding onto our bearish EUR trades.**
- **In the UK, the MPC is expected to deliver its first rate hike in 11 years at the November MPC meeting. We expect Governor Carney to take a hawkish line. We recommend initiating GBP2/5s, 18mfwd steepeners, money market steepeners and selling the 10y sector versus the wings in RV.**

United States

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Euro Area

It is never a "taper" 24

In Europe, despite ECB policy revision being broadly in line with consensus, Draghi projected a very careful tone, making the QE reduction announcement appear dovish. We think next week's Bank of England and new Fed Chair decisions are still a bearish risk. Therefore, we are holding onto our bearish EUR trades.

UK

Long day's journey into hike 36

We expect the MPC to hike for the first time in 11 years next week. We expect Governor Carney to take a hawkish line. The more guarded views of Deputy Governors Sir David Ramsden and Sir Jon Cunliffe may mean that any pricing of cycle could be subsequently reversed, so we recommend GBP 2/5s, 18m fwd steepeners.

Japan

Japanese investors' foreign currency funding and short-term USDJPY basis 39

We provide an overview of the foreign currency funding conditions and investment trends of depository institutions and life insurers, and then consider the outlook for the short-term USDJPY basis market going forward.

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VIEWS ON A PAGE

	US	EUROPE	JAPAN
Direction	• US Treasuries have sold off over the past week amid rising optimism about the enactment of the tax plan and strong economic data. • We maintain our tactical short in 10y Bunds, given the potential for a hawkish surprise at the BoE meeting. • We maintain our recommendation to be long Apr'18 versus Jan'18 FF contracts, as the market is already pricing in a 40-50% probability of rate hike early next year.	• EUR: We are keeping the short 10y Bund outright, reds/greens steepener trades and rolling the cheap technical hike trade from pay October 2018 to December 2018 EONIA. • GBP: The MPC is expected to raise the Bank rate at its November meeting for the first time in 11 years. However, at least two MPC members are cautious on tightening. We expect the November IR to suggest a gradual tightening cycle and highlight upside risk to inflation from the erosion of slack. We recommend selling the 10y sector vs the wings.	• Neutral in the short term. • Bearish in the long term.
Curve/ curvature	• We recommend 3s10s curve flatteners as the risk of significant dovish shift in the Fed's reaction function has declined, in our view. • In relative value, we are turning neutral on our recommendation to be long the 2s3s5s fly. We maintain our recommendation to be long OTR 3s versus older securities.	• EUR: Keep reds/greens (1y1y vs 1y2y fwd) EONIA steepeners. • UK: Receive GBP 5y10yf in RV structures and GBP 1y1yf/1y2yf OIS steepeners, as uncertainty remains underpriced in the longer part of the money market curve. Pay GBP 6m6mf/1y1yf OIS. Pay GBP 2/5s, 18m fwd	• JGB 2s10s steepener.
Swap spreads	• We are neutral on front-end swap spreads, with Libor-OIS unlikely to widen versus forwards and Treasuries rich to fed funds. • We are turning neutral on our 5s30s spread curve steepener, given the widening in 30y spreads. • We continue to recommend paying 10y swap spreads, given the potential for regulatory changes and possible ASW buying as the Fed balance sheets run off.	• The most recent widening in 30y ASW has been due to 6m/OIS basis widening, rather than a richening of 30y Gilt/OIS. We expect the ASW curve to come under steepening pressure in Q4 17. 10y ASW to underperform the wings. The OBR's decision to lower its productivity growth forecasts could result in a £100bn worsening in the medium-term deficit forecasts. • EUR: We maintain short 10y Netherlands ASWs vs. OIS (Netherlands 0.5% Jul 2026).	
Other spread sectors		• EGBs: We keep long 3y BTP (BTP 0.20% Oct 20) on Y/Y ASW. • EGBs: We maintain a long 10s/30s ASW box in Spain (long SPGB 2.9% Oct 46 ASW vs. SPGB 1.3% Oct 26 ASW).	
Inflation	• Forward 1y breakevens below 2% are cheap to our view of the trend in core CPI and the Fed's target; therefore, we believe breakevens offer structural value. • The August CPI reading was strong, but does not change our view that the underlying trend has weakened; we continue to see little near-term upside potential in breakevens. • We continue to recommend front-end breakeven curve-flatteners because the 1y sector offers better value than the 4y sector; we also recommend 10s30s breakeven curve-steepeners.	• EUR: We continue to recommend a short 10y10y vs. 5y5y euro HICPx swap. • EUR: We continue to recommend a 5y/10y euro HICPx swaps steepener. • UK: Long 10y in 30y RPI swap forward. • UK: Long IL22 breakeven as a medium-term inflation hedge. • UK: Short IL22/42 breakeven as a supply concession trade	• Slightly bullish.
Volatility	• We continue to recommend buying 3m*2y straddles against selling 3m*10y strangles as a way to benefit from Fed Chair-related uncertainty. • We maintain a long 1y*10y EUR payers against 1y*10y USD payers as a rate and vol convergence trade as the ECB taper is likely approaching. • We maintain a costless 1x2 6m*3y payer spread as a way to benefit from a small front-end sell-off over the next few months, while being protected from sharp rallies.	• Sell GBP 6m*2y high-strike payers, as short expiry vols on short tails appear rich. • Buy EUR 1y*10y payers versus USD 1y*10y payers to position for a convergence in rates. • Buy EUR 3m*2y1y versus 3m*1y1y 20bp wide payer spreads to position for a steeper front-end rates curve. • Sell EUR 2x4 cap-floor versus 2y*2y swaption straddles, as the trade carries extremely well. • Buy EUR 1y*30y straddles, as implied vols on long tails are extremely low.	• Sell 2y*1y straddles/buy 2y*5y straddles. • Sell 1y*2y payers. • Buy 1y*1y-1y*10y-1y*20y ATM receivers • Buy 1y*10y payers.
Agency MBS	• We recommend a tactical short in mortgages via FN 3.5s to position for the Fed Chair announcement. We continue to maintain a long in DW 3/FN 3.5 and DW 3.5/2.5 swaps. • We estimate that conv 30y speeds will rise 5-10% in next month's report.		

Source: Barclays Research

UNITED STATES: RATES STRATEGY

A dovish trick

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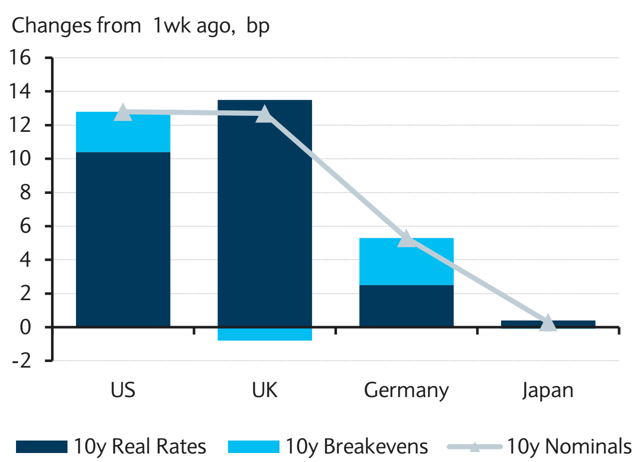
We recommend initiating 3s10s curve flatteners, given the reduced risk of a dovish shift in the Fed's reaction function and of a taper tantrum in Europe. Short positioning also favors the flattener recommendation, in our view. Separately, at the next refunding meeting, we believe the Treasury is likely to keep coupon auction sizes unchanged and note that it is waiting for clarity on the budget deficit outlook before raising them.

US Treasuries have sold off over the past week amid rising optimism about the enactment of the tax plan and strong economic data, particularly in the UK. Figure 1 shows that 10y real yields have risen 10-15bp in the US and UK. German government bonds sold off earlier in the week but rallied on the ECB announcement, which was perceived as dovish as also evident in the weakening of the EUR. ECB President Draghi noted that this "reflects growing confidence in the gradual convergence of inflation rates towards our inflation aim on account of the increasingly robust and broad-based economic expansion". However, he added that "At the same time, domestic price pressures are still muted overall, and the economic outlook and path of inflation are conditional on support from monetary policy" and that the decision to keep purchases open-ended was taken by a large majority.

In the US, investors have largely focused on developments around the next Fed Chair and on the progress on the tax policy front

In the US, data have largely been in line with expectations with our economists' Q3 real GDP growth tracking estimate hovering at 2.3-2.5%. As a result, investors have mainly focused on developments around the next Fed Chair and on the progress on the tax policy front. On the former, President Trump recently noted that he has narrowed his decision to "two and maybe three people". Recent press articles[1] indicate that of the five candidates typically mentioned (Taylor, Warsh, Powell, Yellen, and Cohn) the next Fed Chair is likely to be one of Taylor and Powell. With respect to current Chair Yellen, he noted that "In one way, I'd have to say, you'd like to make your own mark, which is maybe one of the things she's got a little bit against her," although he added that "But I think she's terrific, we had a great talk, and we're obviously doing very well together if you look at the markets."

FIGURE 1
Global safe-haven bonds have sold off led by US and UK



Source: Barclays Research

FIGURE 2
The tax plan will likely have to be scaled back

Key Revenue Lowering provisions	Revenue Effect, $bn
Reduce corporate rate to 20% and repeal corporate AMT	-1,989
Individual income tax rates of 12, 25, and 35%	-1,169
Increase Standard Deduction	-830
Limit individual tax rate on pass-through income to 25%	-769
Repeal individual AMT	-440
Repeal Estate Taxes	-240
Total	**-5,437**
Key Revenue Raising provisions	**Revenue Impact, $bn**
Repeal personal exemptions	1,581
Repeal SALT	1,300
Total	**2,881**
Net Impact on Revenues (2018-27)*	**-2,415**

*Note: Other measures which net raise revenues by ~$140bn are not shown.
Source: Tax policy center, Barclays Research

[1] http://www.politico.com/tipsheets/morning-money/2017/10/26/fed-fight-gets-even-weirder-223007

A significant dovish shift in the perceived Fed's reaction function over the coming days is now unlikely

Jerome Powell as Fed Chair would likely be initially perceived as very close to the status quo as his recent speeches have been fairly similar to Chair Yellen's (see *The Apprentice: FOMC edition*, October 12, 2017, for a discussed on views of Fed Chair candidates). However, were John Taylor to be nominated as Chair or even Vice Chair, that would tilt the reaction function to the hawkish side, in our view. While the "Taylor rule" does allow for a lot of flexibility in terms of the inputs on the neutral rate, he has criticized the Fed in the past for pursuing an activity policy approach, and has not been a proponent of asset purchases. Further, Taylor as Vice Chair could potentially exert greater influence on Powell than, for example, Fisher had on Yellen, given Powell's lack of economics background. Having said that, if John Taylor is neither Chair nor Vice Chair, there is still scope for a dovish knee-jerk reaction. However, with Gary Cohn no longer under consideration, a significant dovish shift in the perceived Fed's reaction function over the coming days is now unlikely, in our view.

The House and the Senate have passed the budget resolution that paves the way for enacting the tax plan with a simple majority

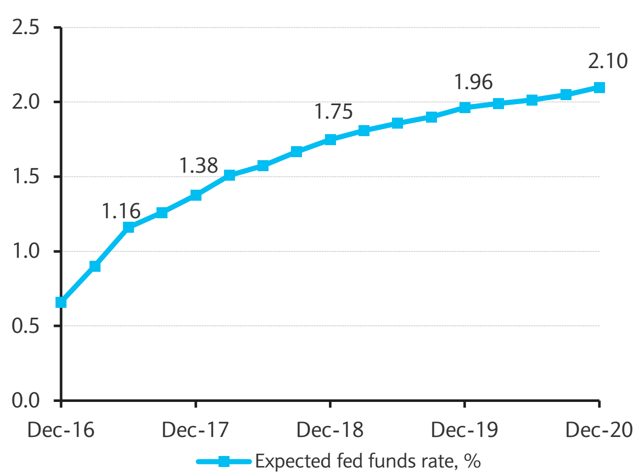
On the public policy front, the House and the Senate have now passed the budget resolution that paves the way for enacting the tax plan with a simple majority and allowing it to add $1.5trn in deficits over a decade. However, the budget passed in the House with a narrow majority (216-212), which suggests that hurdles remain as many Republicans from high tax states voted no, given the possibility of the elimination of the state and local tax (SALT) deduction. In terms of the timeline, House Ways and Means Chairman Brady mentioned that Republicans will introduce the bill on November 1 and his committee will begin discussion on November 6[2]. The initial estimates from the Tax Policy Center suggest that the plan lowers revenues by $2.4trn over the next decade, assuming that the elimination of the SALT deduction raises about $1.3trn in revenues (Figure 2).

The plan will likely have to be scaled back to meet the deficit goal

Hence, the plan will likely have to be scaled back to meet the deficit goal. In this process, support may fall. For instance, House Freedom Caucus Chairman Meadows has said that he would vote against a plan if it included a corporate tax rate higher than 20%, set a small-business rate at more than 25%, and did not double the standard deduction for individuals[3]. Figure 2 shows that these three provisions alone are estimated to lower revenues by $3.6trn over the next decade. Hence, in our view, the passage of the tax plan is likely to be tougher than the passage of the budget resolution.

FIGURE 3

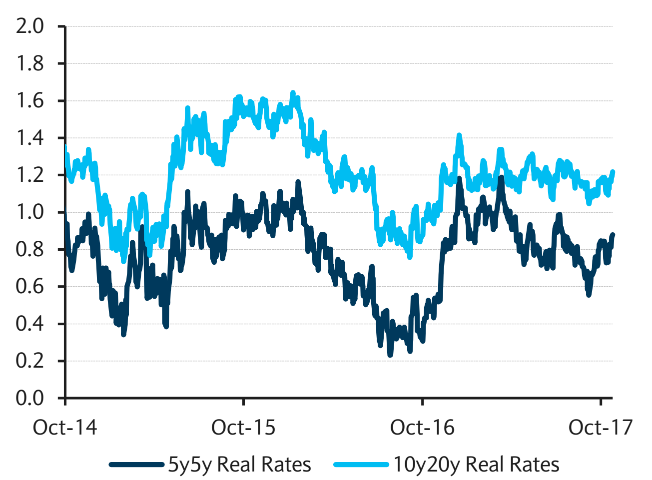
Market pricing of the hiking cycle remains benign



Source: Bloomberg, Barclays Research

FIGURE 4

Long-term real yields have risen from the lows and look high relative to estimates of neutral rates



Source: Bloomberg, Barclays Research

[2] http://www.politico.com/story/2017/10/26/republican-leaders-budget-vote-244198

[3] https://meadows.house.gov/media-center/in-the-news/top-house-conservative-offers-red-line-on-tax-reform

We recommend initiating 3s10s curve flatteners

We had earlier turned tactically neutral on our curve flattener recommendation, given the risk of a dovish Fed Chair and the potential for taper tantrum in Europe. With the ECB meeting out of the way and the reduced risk of a dovish shift in the Fed's reaction function, we recommend initiating 3s10s curve flatteners. Short-term real yields are still in negative territory while long-term real yields in the US look high relative to measures of neutral rate (Figure 3 and 4) and global real yields. Figure 5 shows that 10y US real yields relative to those in Germany are now just 10-15bp shy off the spread reached during the peak optimism around the enactment of the pro-growth agenda. This is despite the ECB reducing the pace of asset purchases. Further, Figure 6 shows that our index of Trump trade has retraced almost 50% of the underperformance and the plans in consideration now are smaller in scope than were being debated earlier in the year (for instance, increasing infra-structure spending has moved to the back-burner). Positioning also supports a curve flattener, in our view. Figures 7 and 8 show our estimated positioning for fixed income mutual funds and for CTAs/macro hedge funds. The former are likely underweight their benchmark and the latter have also become short.

We maintain our recommendation to be short Bunds

Separately, we maintain our recommendation to be short Bunds. Next week, the Bank of England (BoE) is widely expected to raise short rates. While this is already priced in; the path of the hiking cycle is quite shallow in our view. We believe the BoE is unlikely to hike without expressing confidence in its actions and laying the groundwork for normalization. Hence, there is room to pull forward the path and some spillover to Bunds is still likely. Separately, we maintain our underweight Agency MBS basis with the risk of a hawkish shift in the Fed's reaction function. At the next week's FOMC meeting, we expect the Fed to reiterate its tightening bias, given the drop in measures of labor market slack.

Q4 Treasury Refunding: Waiting for clarity on the deficit outlook

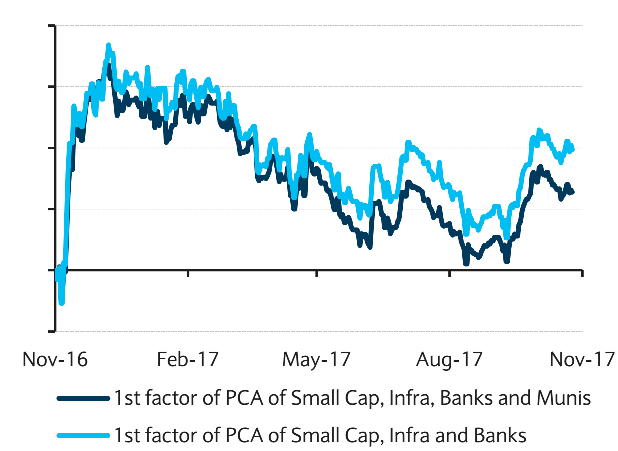
The Treasury is scheduled to release its Q4 refunding statement on November 1. At the last meeting, the Treasury said that it "will likely respond to the additional borrowing needs associated with SOMA redemptions by increasing both Treasury bill and Treasury nominal coupon auction sizes, beginning with bills and then coupons, as appropriate. If and when the timing of the Federal Reserve's start to SOMA redemptions becomes available, Treasury will provide market participants with further guidance regarding changes to future auction sizes".

We believe the Treasury is likely to keep coupon auction sizes unchanged, increasing T-bill issuance for now and note that it is waiting for clarity on the budget outlook before increasing coupon auction sizes. We may get information about which tenors the Treasury

FIGURE 5
10y US real yields look high in a global context as well

Source: Barclays Research

FIGURE 6
"Trump trades" have outperformed in recent weeks



Note: For stocks, we use performance relative to the SPX and for munis we use the ratio to Treasury yields. Source: Barclays Research is looking to raise auction sizes. We expect a proportional increase in sizes across all tenors starting at the February refunding meeting next year. There are a few reasons to wait:

We believe the Treasury is likely to keep auction sizes unchanged, increasing T-bill issuance for now and note that it is waiting for clarity on the budget outlook

First, with the debt limit issue still not fully resolved, Treasury's near-term borrowing needs are likely to be revised down, reducing urgency to raise coupon auction sizes. At the last refunding meeting, the Treasury estimated borrowing at about $500bn in Q4 but of that $300bn was to raise the cash balance (from $60bn to $360bn). Under the agreed suspension of the debt limit only upto December 8, the Treasury will likely not want to ramp up the cash balance to such a high level in the last few weeks of the year. We believe the projected change in cash balance is likely to fall (ie, to $100bn) significantly lowering the Q4 borrowing forecasts. Further, in Q1, the Treasury will, again, be forced to keep net marketable borrowing in check to remain under the debt limit.

Second, with respect to the Fed reinvestments, SOMA addons will remain elevated over the coming year, allowing the Treasury to raise similar amount of cash from the notes/bonds universe. With the amount of maturing debt in the SOMA portfolio significantly exceeding the caps next year, we estimate that the Fed will reinvest $195bn in 2018, compared with $177bn in 2017. Hence, even if the Treasury kept offering sizes unchanged, total gross issuance (to the Fed and other investors combined) is scheduled to rise next year. The amount of maturing debt (held by the Fed and other investors combined) is not significantly higher. Hence, it would end up raising almost $370bn in CY-18 (versus $400bn in CY-17); so not much lower. The Treasury would be raising ~$600bn from the market but of that roughly $230bn would be to pay to the Fed as it reduces its Treasury portfolio.

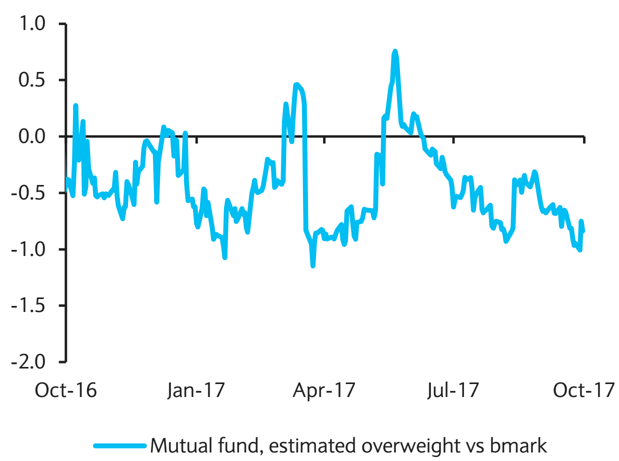
The need to raise auction sizes largely arises from widening budget deficits leading to a large funding gap

We believe an increase in coupon auction sizes early next year is more likely

Still, the need to raise auction sizes arises from widening deficits leading to a large funding gap. Under a baseline forecast (assuming no change in the tax law), Treasury's borrowing needs next year could be $400-500bn higher than the net cash raised via the notes/bonds universe. This would need to be funded via an expansion of the T-bill universe. The current share of the T-bill universe at 13% is quite low by historical standards and the Treasury is likely to be comfortable raising that share. It would rise to about 16% by year-end 2018 and more if deficits are wider. While this is still not high, it would continue to steadily rise, pulling the average maturity down over time. Hence, in our view, the Treasury would want to raise coupon sizes at some point. However, given the current low share of T-bills, it has the flexibility to wait until there is clarity on the deficit outlook. We believe an increase early next year is more likely (see *One day at a time*, dated August 4, 2017, for our forecast for auction sizes). Separately, at the last meeting, the Treasury said it was still studying ultra-long bonds and seeking market feedback. The Treasury is likely to reiterate that, in our view.

FIGURE 7

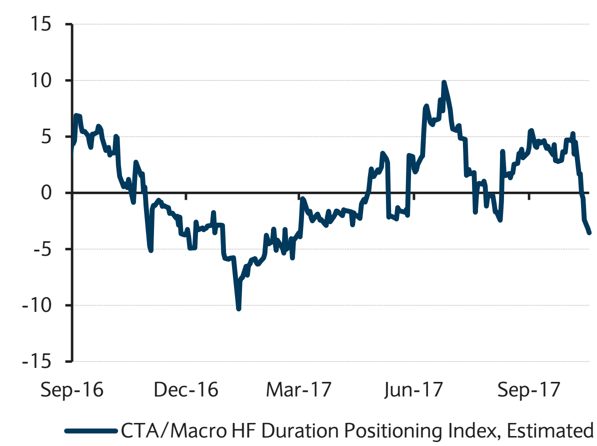
Fixed income mutual funds are likely underweight their benchmark duration



Source: Barclays Research

FIGURE 8

Hedge fund positioning is also likely short



Source: Barclays Research

Market views

Duration

- US Treasuries have sold off over the past week amid rising optimism about the enactment of the tax plan and strong economic data.
- We maintain our tactical short in 10y Bunds, given the potential for a hawkish surprise at the BoE meeting.
- We maintain our recommendation to be long Apr'18 versus Jan'18 FF contracts, as the market is already pricing in a 40-50% probability of rate hike early next year.

Curve/curvature

- We recommend 3s10s curve flatteners as the risk of significant dovish shift in the Fed's reaction function has declined in our view.
- In relative value, we are turning neutral on our recommendation to be long the 2s3s5s fly. We maintain our recommendation to be long OTR 3s versus older securities.

Swap spreads

- We are neutral on front-end swap spreads, with Libor-OIS unlikely to widen versus forwards and Treasuries rich to fed funds.
- We are turning neutral on our 5s30s spread curve steepener, given the widening in 30y spreads.
- We continue to recommend paying 10y swap spreads, given the potential for regulatory changes and possible ASW buying as the Fed balance sheets run off.

Volatility

- We continue to recommend buying 3m*2y straddles against selling 3m*10y strangles as a way to benefit from Fed Chair-related uncertainty.
- We maintain a long 1y*10y EUR payers against 1y*10y USD payers as a rate and vol convergence trade as the ECB taper is likely approaching.
- We maintain a costless 1x2 6m*3y payer spread as a way to benefit from a small front-end sell-off over the next few months, while being protected from sharp rallies

INFLATION-LINKED MARKETS: UNITED STATES

Stranger things ahead

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The front end has performed well ahead of positive carry, but we do not expect positive breakeven carry to last beyond November. We recommend switching the short end of energy-hedged front-end breakeven flatteners to TIIJul19s.

Winter is coming, as it tends to do

The hurricane-related gasoline spike in early September led to a jump in that month's headline CPI and, along with it, projections for November carry. Many investors think that the near-term carry outlook as a positive for the market. It may be, but the front end has outperformed, adjusted for energy price moves, since late August, so we believe the market has already priced in positive carry. For example, the TIIJul18s are up 24bp on a carry-, RBOB- and beta-adjusted basis over that period (Figure 1). We have been recommending energy-hedged front-end breakeven flatteners and believe that recent strong performance can continue. However, we will be treading cautiously into November on the risk that the moods of investors who are excited about November carry might soon sour.

As it often is, because of seasonals, breakeven carry is expected to be negative over the winter. As an example, 5y breakevens are expected to carry 9bp positive in November, but -18bp cumulative the next three months for a net of -9bp over the four-month period (Figure 2). To put this in perspective, the same four month net was -8bp last year and -25bp the year before. Still, while negative winter carry is not new, unusually positive November carry may leave some investors surprised when the cold arrives.

FIGURE 1
Breakeven performance pre-hurricane to now

Issue	Change in BE (bp)	Carry (bp)	Energy shock in BE terms (bp)		Carry adjusted	Carry and energy adjusted BE change		Carry, RBOB and 0.7 Beta Adjusted
			WTI	RBOB	BE change	WTI	RBOB	
TII 0.125 Apr 18	50.0	21.2	34.1	55.0	71.2	37.1	16.2	14.0
TII 1.375 Jul 18	65.2	-7.7	22.3	29.2	57.5	35.2	28.3	23.9
TII 1.875 Jul 19	30.7	-4.1	1.9	10.3	26.6	24.7	16.3	8.8
TII 0.625 Jul 21	14.0	-2.7	-0.6	4.7	11.3	12.0	6.6	-1.6
TII 0.125 Apr 22	14.2	-1.8	-0.6	4.2	12.4	12.9	8.2	-0.4
TII 2.375 Jan 25	14.8	-1.3	-0.3	2.4	13.5	13.9	11.1	2.9
TII 0.375 Jul 27	12.1	-1.2	-0.3	1.9	10.9	11.1	9.0	1.1
TII 3.625 Apr 28	7.9	-1.1	-0.2	1.7	6.9	7.1	5.2	-1.5
TII 3.375 Apr 32	5.7	-1.1	-0.2	1.2	4.7	4.8	3.4	-3.2
TII 2.125 Feb 40	12.8	-0.9	-0.1	0.8	11.9	12.0	11.1	4.8
TII 0.875 Feb 47	11.3	-0.8	0.0	0.0	10.6	10.6	10.6	4.5

Source: Barclays Research

FIGURE 2

Estimated carry on breakevens through February

	November	December	January	February	Net
TII 1.375 Jul 18	58.2	-52.1	-54.6	-64.1	-112.6
TII 1.375 Jan 20	18.7	-14.1	-11.5	-10.2	-17.2
TII 1.125 Jan 21	12.5	-9.9	-8.0	-6.9	-12.3
TII 0.125 Apr 22	8.7	-7.2	-5.7	-4.9	-9.1
TII 0.625 Jan 24	6.2	-5.3	-4.2	-3.6	-7.0
TII 0.375 Jul 25	4.8	-4.4	-3.4	-2.9	-5.9
TII 0.125 Jul 26	4.3	-3.8	-3.0	-2.5	-5.1
TII 0.375 Jul 27	3.8	-3.5	-2.8	-2.3	-4.9
TII 3.875 Apr 29	3.9	-3.3	-2.6	-2.2	-4.3
TII 3.375 Apr 32	2.9	-2.9	-2.3	-1.9	-4.2
TII 2.125 Feb 40	1.8	-2.0	-1.6	-1.4	-3.2
TII 0.875 Feb 47	1.2	-1.6	-1.3	-1.1	-2.7

Source: Barclays Research

We switch from the TIIJul18s to the TIIJul19s in our 1-4y BE flattener recommendation, given the former's strong performance

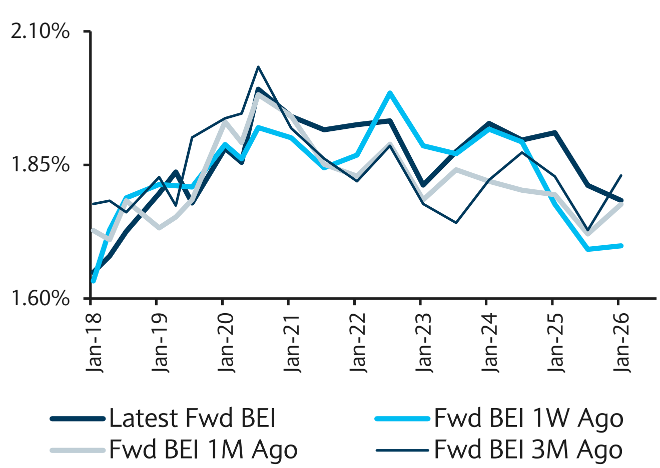
While the front end of the spot breakeven curve has flattened, the slope in the forward 1y breakeven curve remains steep out to the 4y and we think there is still value in breakeven flatteners out the 4-5y sector (Figure 3). One reason for the energy-adjusted spot curve flattening has been the strong performance of the TIIJul18s. This strength has caused the TIIJul18/Jul19 forward to go down, even as most breakevens have moved higher (Figure 4). We think this presents an opportunity to switch the front leg of the flattener out to the TIIJul19s. In addition to the recent cheapening on the forward BE, we recommend switching to the 2019s because if there is policy-induced inflation from tax cuts, we expect it to come in late 2018/early 2019s and the TIIJul19s are better positioned to benefit from that.

Long-end RV is dead; long live long-end RV

Last week (*Lean times ahead for the 7y*, October 19, 2017), we discussed value in the 7y sector and above we evaluate opportunities in the front end. We find that monetizable dislocations are much less frequent in the long end of the curve. Since July, real yield curve and butterfly spreads in the 30y sector have been in very tight ranges. The ones shown in Figure 5 have all been 0.7bp ranges since early July. However, there still could be opportunities. We find that the largest relative value moves in the 30y sector tend to come around new issuance, and, to some extent, close to reopening (although that clearly did not happen this month). If that pattern holds up, the next opportunities may come early next year.

FIGURE 3

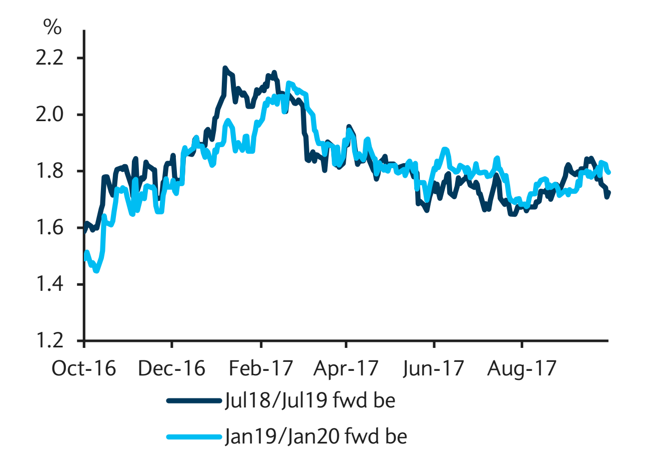
4-5y sector still rich on the forward 1y breakeven curve



Source: Barclays Research

FIGURE 4

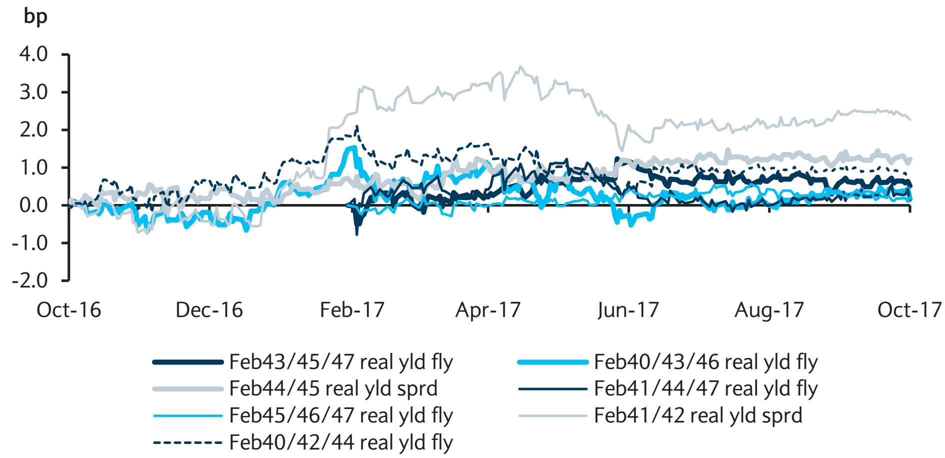
Short-end forward 1y breakevens



Source: Barclays Research

FIGURE 5

Spreads and flys in the 30y sector (rebased, bp)

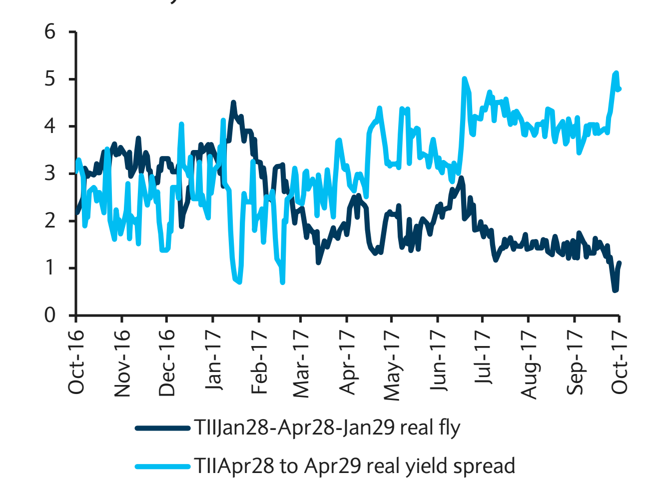


Source: Barclays Research

The well off-the-run 20y and 30y sectors tend to present more dislocations because of liquidity and float issues. While the off-the-run 20y January issues, which have rolled into the 10y sector, tend to be more stable because they are more anchored by liquid on-the-runs, 28s and 29s have jumped around more. For example, while the sector stands out as somewhat cheap, the TIIApr28s had richened on the curve earlier this week (Figure 6). However, they were not yet rich enough to cover expected transaction costs for us to make a recommendation. They also might be richening (well) ahead of expected demand as they roll into the 10y sector. While the market has become used to high coupon January issues rolling in, this will be the first of the old 30y series. The issue's notional is $16bn but the Fed owns nearly half in its SOMA account and much of the additional float might be locked away in by-and-hold accounts. To the extent that 1-10y funds will need to buy the issue in the spring it might catch a bit, meaning that the recent cheapening, within a relatively cheap sector, could be justified. The 11-15y sector has also moved sharply on the relative ASW curve (Figure 7). We have recommended 7s10s relative ASW curve steepeners to take advantage of this move, but investors with a longer horizon might consider using issues just beyond the 10y point as the long in the position.

FIGURE 6

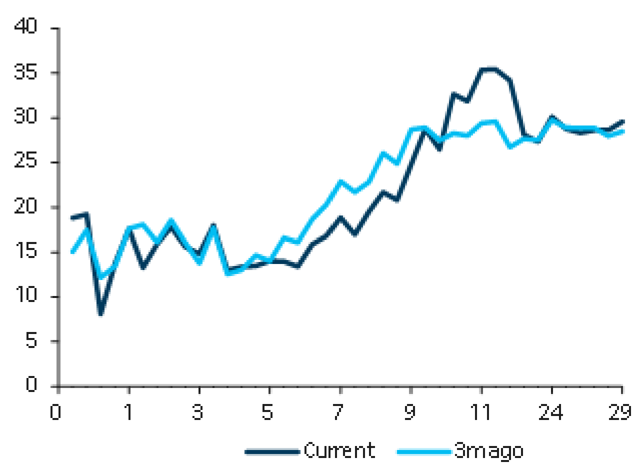
RV in the 11-12y sector



Source: Barclays Research

FIGURE 7

TIPS relative ASWs



Source: Barclays Research

UNITED STATES: AGENCY MBS

Mortgages finally underperform

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Mortgages ended the week lower with the continued sell-off in rates. We remain underweight the mortgage basis over the short term as we await the president's decision about the Fed Chair nominee. We also maintain our long in the DW 3/FN 3.5 swap and the DW 3.5/2.5 swap. This week, we take a look at the MMIF Fund and expect that the fund's capital position will improve again this year. We also briefly discuss implications for agency MBS investors from Walter's imminent Chapter 11 filing.

Mortgages end the week lower

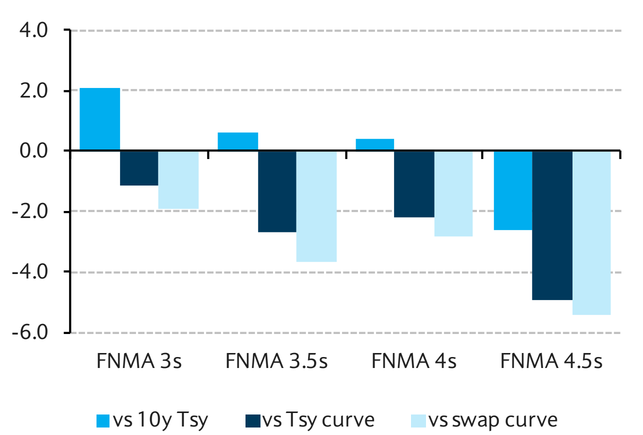
Rates sold off again this week as momentum for tax reform gained steam. After the Senate narrowly passed a budget resolution last Thursday, allowing the upcoming tax bill to reduce projected revenue over the next 10 years by up to $1.5trn, the House followed up earlier today, also narrowly passing the same budget resolution. The passage in both chambers allows tax reform legislation to be passed by the Senate with a simple majority vote.

President Trump has yet to announce his decision about who will succeed Janet Yellen as Fed Chair after her term expires in February 2018. According to an article in *Politico*[4], the choice is now between current Fed governor Jerome Powell and Stanford University economist John Taylor. The probability for Taylor has recently increased after Trump asked GOP senators for a show of hands over their preferred candidate, and Taylor appeared to have won the vote. We generally believe that a Taylor nomination will lead to a more hawkish Fed and result in a sell-off in rates and risk assets, while a Powell nomination could generate a small relief rally in rates and risk assets.

The ECB announcement this morning regarding a taper of its asset purchase programme was in line with expectations

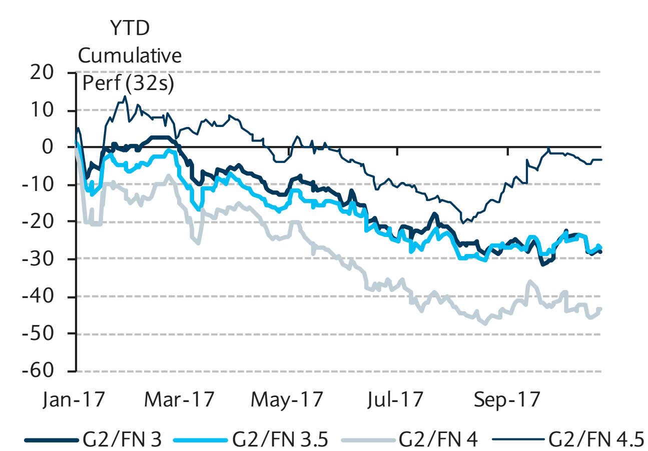
In Europe, the ECB announcement this morning regarding a taper of its asset purchase programme was in line with expectations. The central bank will extend its bond buying programme by at least nine more months, through September 2018, but will reduce the size of its purchases to €30bn/month starting in the new year, down from its current pace of €60bn/month.

FIGURE 1
Mortgage performance since last Wednesday's close



Note: Performance reflects price changes between October 18, 2017, close and October 25, 2017, close. Source: Barclays Research

FIGURE 2
Most G2/FN swaps were up this week after adjusting for duration



Note: Duration-adjustment is based on 30-day empirical duration. Source: Barclays Research

[4] "Fed fight gets even weirder", *Politico*, October 26, 2017

The 10y was fairly volatile over the past week, contributing to some volatility in mortgage performance. While mortgages outperformed on Friday and Monday, they have underperformed over the past two days and are down another 1-2 ticks against their Treasury curve hedges as of the time of writing.

Over the course of the past five trading sessions, FN 3.5s and 4s were down 2.7 ticks and 2.2 ticks, respectively, versus their Treasury curve hedges (Figure 1). Meanwhile, FN 4.5s underperformed significantly, down 4.9 ticks, while FN 3s were the best performer in the stack, down only 1.1 ticks vs their hedges.

GLD/FN swap performance was mixed. While GLD/FN 3s were 0.6 ticks higher, GLD/FN 4s declined 0.25 ticks. The GLD/FN 3.5 swap was only 0.125 ticks higher. Meanwhile, G2/FN swaps mostly outperformed, especially among higher coupons. On a duration-adjusted basis, G2/FN 4s and 4.5s were up 2.1 ticks and 1.25 ticks, respectively. Meanwhile, the G2/FN 3.5 swap was up 0.4 ticks, while the G2/FN 3 swap was 0.1 ticks lower.

DW/FN swaps were mixed this week. Duration-neutral DW 2.5/FN 3 and DW 3/FN 3.5 swaps were higher by 1.6 and 0.9 ticks, respectively, w/w. Meanwhile, the DW 3.5/FN 4 swap declined 1.2 ticks. We maintain our long recommendation in the DW 3/FN 3.5 swap, as well as our long recommendation in the DW 3.5/2.5 swap.

Tactically negative on the basis over the very short term but neutral over a longer horizon

As discussed in *US Agency MBS: A quiet week for the basis,* October 12, 2017, we are tactically negative on the basis over the short term, given the potential for a rise in market volatility. While the ECB meeting is now out of the way and was mostly in line with expectations, the upcoming announcement for who the next Fed Chair will be could act as a catalyst for an increase in rate volatility, especially if Taylor is selected. Even if Taylor is not nominated to be the next Fed Chair, it is possible that he may be nominated as the Vice-Chair to succeed Stanley Fischer. Either scenario would likely represent a hawkish tilt for the FOMC and may be a short-term negative for risk assets. As such, we continue to recommend an underweight in FN 3.5s.

Over a longer horizon, we continue to be neutral on the basis. While MBS net issuance has been robust throughout 2017, we expect it to decelerate as we head into the winter months. In addition, absent a sustained increase in rate volatility, real money demand for mortgages remains strong.

A look at the FHA MMI Fund

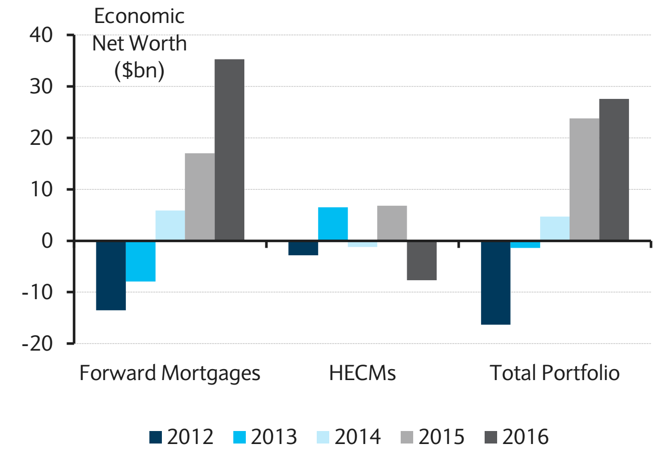
With HUD expected to announce its FY 2017 capital ratio in mid-November, we briefly review the state of the FHA's Mutual Mortgage Insurance (MMI) Fund as of the end of FY 2016 and provide an estimate for how the fund's capital ratio may have ended the 2017 fiscal year. Depending on the results of this year's MMI Fund actuarial report, HUD Secretary Carson may allow the 25bp MIP cut that was suspended earlier this year to go through, although we do not believe that the size of the fund's capital ratio will be the only factor in his decision.

A review of the MMI Fund at the end of FY 2016

The MMI Fund ended FY 2016 with an economic net worth of $27.6bn, up from $23.8bn as of the end of FY 2015. The improvement in the fund's capital position was entirely driven by the single-family forward mortgage portfolio, which experienced a jump in its capital position from $17bn to $35bn over the year (Figure 3). As a result, the capital ratio of the forward mortgage portfolio also surged from 1.6% to 3.3% (Figure 4). In contrast, the reverse mortgage book of business (HECMs) experienced a sharp reversal in its capital

FIGURE 3

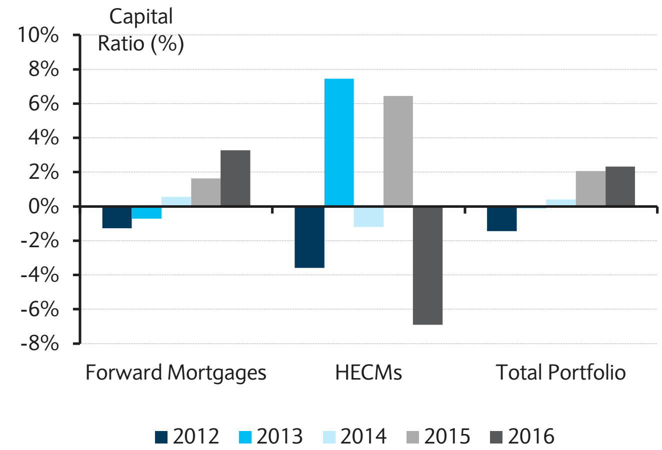
Historical economic net worth of the MMI Fund ($bn)



Source: FHA, Barclays Research

FIGURE 4

Historical capital ratio of the MMI Fund (%)



Source: FHA, Barclays Research

position from +$6.8bn as of the end of FY 2015 to -$7.7bn by the end of FY 2016, pulling down its capital ratio to -6.9% from +6.4%.

While the capital position of the FHA's HECM portfolio turned sharply negative at the end of last year, this was more than offset by the improvement in the single-family forward mortgage portfolio. As a result, the capital ratio of the combined MMI Fund still increased to 2.32% from 2.07% the prior year. The increase in the MMI Fund's capital ratio convinced then-HUD Secretary Julian Castro to approve a 25bp cut in annual MIPs on January 9, 2017. However, the cut was later suspended by the Trump administration on January 20, 2017, the same day that President Trump took office (see *Trump administration suspends recently-announced FHA MIP cut,* January 20, 2017, for more on this).

Potential status of the MMI Fund in FY 2017

With HUD Secretary Ben Carson having now been in his role for several months, speculation has turned to whether he will allow Castro's last-minute 25bp MIP cut to eventually go through. Given establishment Republicans' concerns about the fiscal health of the MMI Fund (particularly that of House Financial Services Committee Chairman Jeb Hensarling (R-Texas)), Secretary Carson will very likely wait until the FY 2017 MMI Fund actuarial report is released in mid-November before he makes a decision. Although a significant improvement in the MMI Fund's capital ratio this year does not guarantee that Secretary Carson will approve the 25bp MIP cut, it will at least provide him with some justification for the cut.

Continued improvement likely in the single-family forward mortgage portfolio

Based on last year's actuarial reports, the capital ratio of the FHA's single-family forward mortgage portfolio is expected to improve again, rising to 4.2% from 3.3%

Based on last year's actuarial reports, the capital ratio of the FHA's single-family forward mortgage portfolio is expected to improve again, rising to 4.2% from 3.3% (Figure 5). Meanwhile, the capital ratio of the HECM portfolio is anticipated to worsen for another year, falling to -7.6%, as 2017 endorsements are expected to generate negative value for the fund. Nevertheless, as occurred in 2016, the improvement in the forward mortgage portfolio should, again, outweigh the deterioration in the HECM portfolio such that the overall MMI Fund capital ratio still experiences an increase from 2.32% to 3.07%.

FIGURE 5

FY 2016 actuarial report's projected economic net worth (ENW), insurance-in-force (IIF), and capital ratio of the MMI Fund

	Forward Mortgages			HECMs			Total MMI Fund		
	ENW ($bn)	IIF ($bn)	Capital Ratio	ENW ($bn)	IIF ($bn)	Capital Ratio	ENW ($bn)	IIF ($bn)	Capital Ratio
FY 2015	17,044	1,046,224	1.63%	6,778	105,234	6.44%	23,822	1,151,458	2.07%
FY 2016	35,272	1,076,650	3.28%	-7,721	111,919	-6.90%	27,551	1,188,569	2.32%
FY 2017 (Proj)	46,647	1,124,507	4.15%	-8,640	113,279	-7.63%	38,007	1,237,786	3.07%

Note: FY 2017 projections are based on forecasts from last year's actuarial reports. Source: FHA, Barclays Research

Although we do not have any special insight into how the FY 2017 actuarial report will turn out, we can look at how some of the assumptions embedded in last year's actuarial report projections compare with what actually occurred this year. For example, we now have FHA endorsements of forward and HECM mortgages through June 2017, so we can compare these volumes with what was estimated from last year's actuarial report.

Endorsements for the forward mortgage portfolio in the first nine months of FY 2017 have exceeded endorsements over the same period in FY 2016

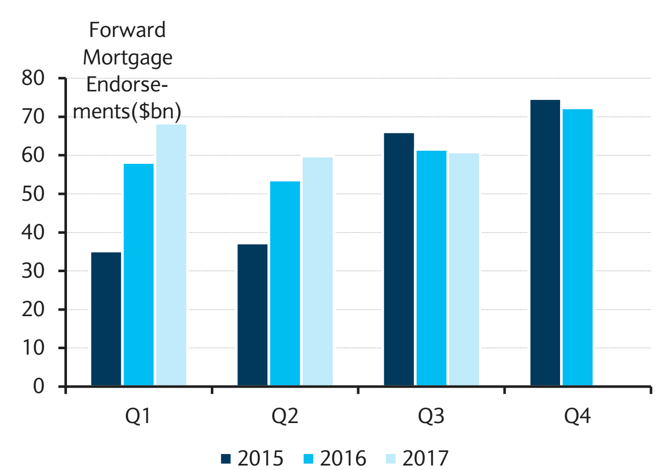
The FY 2016 actuarial report projected that single-family forward FHA mortgage endorsements would total $214bn in FY 2017, down from $245bn in FY 2016. However, through the first nine months of the 2017 fiscal year, FHA forward mortgages endorsements have actually been $189bn, ahead of the $173bn in forward mortgage endorsements in the first nine months of the 2016 fiscal year (Figure 6). If we make the simplistic assumption that the remaining three months of the 2017 fiscal year will generate the same volume of endorsements as the average of the first nine months, we can estimate that total forward mortgage endorsements in 2017 will be approximately $252bn, far outpacing the $214bn projected in last year's report.

We attribute the pickup in FHA mortgage endorsements this year to strong purchase activity in the housing market, which has occurred despite higher mortgage rates. Given that the net present value of forward mortgage endorsements in 2017 is estimated to be positive, the larger-than-expected volume of endorsements this year should have a positive effect on the capital position of the single-family forward mortgage portfolio.

Likewise, projections in last year's actuarial report for how national home prices would evolve in 2017 also appear to be too low. While the report does not disclose the precise HPA assumptions used, figures in the report suggest that the national HPA assumption for this

FIGURE 6

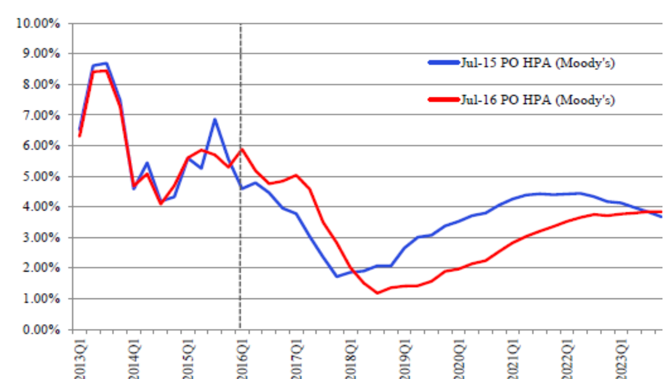
2017 FHA forward mortgage endorsements have exceeded 2016 levels despite higher rate levels



Note: Shows FHA forward mortgage endorsements by fiscal quarter. Source: FHA, Barclays Research

FIGURE 7

FY 2016 projections of home prices in 2017 were too low



Source: FHA

year was 3-5% (Figure 7). Based on the y/y change in the FHFA's purchase-only US home price index through August 2017, actual HPA this year has been running closer to 6.5%. Again, the higher-than-expected amount of home price appreciation should bode well for the capital position of the single-family forward mortgage portfolio.

In most cases, the actual outcomes in 2017 have been in line with or better than anticipated in last year's actuarial report

Applying this framework to other assumptions made in last year's report reveals that, in most cases, the actual outcome in 2017 has been in line with or better than anticipated in the report (Figure 8). Not only are endorsement volumes and HPA higher than expected, but also default claims have been lower than the assumption used in last year's report. The one exception to this is with prepayments on FHA loans, which were much higher than expected in FY 2017, likely because of elevated prepayment speeds between October and December 2016, as borrowers aggressively refinanced to lock-in their mortgage rates after Trump won the presidential election.

FIGURE 8

Comparing actual results vs. what was projected for the forward mortgage portfolio

Assumption	Projected	Actual	Estimated Effect on Capital Ratio
2017 Endorsements ($bn)	214	252	Positive
Amortized IIF ($mn)	1,124,507	1,150,118 (Through Q3)	Positive
Prepayments through June (#)	337,412	761,082	Negative
FY 2017 HPA	3-5%	6.5% (Through Aug)	Positive
10y Tsry in FY 2017	2-3.25%	2.30%	Neutral
Claims through June ($mn)	10,763	6,581	Positive

Source: FHA, Bloomberg, FHFA, Barclays Research

Given that Figure 8 carries many more positive than negative surprises, the capital ratio of the forward mortgage portfolio may increase by more than the 87bp projected in last year's report and may end the 2017 fiscal year above 4.15%. However, we would be a bit cautious about automatically drawing that conclusion, since changes in the assumptions used in the actuarial model can often have a significant effect on the end-state capital ratio.

We believe that the capital ratio of the single-family forward mortgage portfolio will exceed the 4.15% projected in the FY 2017 report; however, we do not believe that it will be materially better than forecast

For example, in FY 2016, more pessimistic economic scenario forecasts reduced the capital position of the forward mortgage fund by $6.2bn (although this was more than offset by the effect of higher endorsement volumes and better-than-expected claims performance). For the 2017 fiscal year, the actuarial report could include higher claim assumptions because of defaults by borrowers located in areas damaged by Hurricanes Harvey and Irma. According to the FHA, the forward mortgage portfolio's second- and third-largest exposures are to Texas and Florida, which together represented over 12% of FHA origination volumes over the past five years. As a result, while we believe that the capital ratio of the single-family forward mortgage portfolio may exceed the 4.15% projected in the FY 2017 report, we do not believe that it will be materially better than forecast, and our estimate is that the forward mortgage portfolio's capital ratio will end FY 2017 at approximately +4.3%.

The capital ratio of the HECM portfolio may remain negative but unlikely to experience as large of a decline as last year

As referenced in Figure 5, the capital ratio of the HECM portfolio was projected to deteriorate again in FY 2017, given that 2017 endorsements were expected to generate a negative value for the fund. As with FHA forward mortgages, endorsements of HECMs have also increased this year to $13.2bn in the first nine months of FY 2017, up from $11bn over the same period in FY 2016. However, on an annualized basis, the $17.7bn of HECM endorsements that may occur this year is in line with the $18.5bn of endorsements expected from last year's actuarial report (Figure 9).

FIGURE 9

Comparing actual results with what was projected for the HECM portfolio

Assumption	Projected	Actual	Estimated Effect on Capital Ratio
2017 Endorsement Volumes ($bn)	18.5	17.7	Mostly Neutral
National HPA in 2017	5.30%	6.5% (through Aug)	Positive
HPA in California	7.62%	8.3% (through June)	Positive
1y CMT in 2016	0.5-0.75%	1.05%	Negative

Source: FHA, Bloomberg, FHFA, Barclays Research

A comparison between the model assumptions used in last year's report and what has actually occurred suggests that the overall effect of positive and negative surprises on the HECM portfolio's capital ratio may be muted

Using the same framework that we used for the FHA forward-mortgage portfolio, a comparison between the model assumptions used in last year's report and what has actually occurred suggests that the combined effect of positive and negative surprises on the HECM portfolio's capital ratio may be muted. While total endorsements are generally in line with what was projected last year, the positive effect from actual HPA turning out to be higher than projected may be offset by the negative effect from short-term rates also climbing above last year's estimates (higher short-term rates accelerate the accrual rate on HECM loans, eventually leading to higher losses).

As a result, absent a significant change to the model assumptions used in this year's HECM actuarial report, the capital ratio of the HECM portfolio may remain negative for another year, although we do not expect it to dramatically worsen, as it did last year. The sharp decline in the HECM portfolio's capital ratio last year was primarily driven by an update to assumptions regarding:

- A higher home price sale discount on HECM properties relative to the price on non-HECM properties (-$6.4bn contribution to capital position)
- Lower assignments for HECM properties that reach 98% of their maximum claim amounts (-$4.45bn contribution to capital position)
- Higher property disposition expenses (-$2.25bn contribution to capital position)

We believe that the overall HECM portfolio capital ratio may remain relatively stable at approximately -7%

Together, these three model updates reduced the capital position of the HECM portfolio by approximately $13bn, explaining the bulk of last year's decline. However, we do not expect these assumptions to change significantly in this year's report, given that last year's assumption changes were a result of new datasets that the actuarial firm received with respect to these variables. Since these model assumption changes have already been made, the incremental effect of further model assumption changes may be modest. As a result, we believe that the overall HECM portfolio capital ratio may remain relatively stable at approximately -7%.

The effect of MIP changes made to the HECM program earlier this year may not be seen until the FY 2018 actuarial report

On August 29, 2017, HUD announced that it was making changes to its HECM program to ensure its long-term viability[5]. In particular, HUD increased the up-front MIP on FHA-insured HECM loans to 2% of their maximum claim amounts (MCA), while it reduced the annual MIP on the loans to 50bp. The changes would be applicable for all FHA case numbers assigned on or after October 2, 2017. Previously, the up-front MIP on HECM loans was 50bp for homeowners who borrowed or had funds available to them equal to 60% or less of their principal limit factors (PLFs)[6] during the first 12-month disbursement period

[5] See Mortgagee Letter 2017-12

[6] Principal Limit Factors are akin to an LTV ratio for HECM properties and determine how much a homeowner can borrow against a HECM loan

and 250bp otherwise. Meanwhile, the annual MIP on HECM loans was previously 125bp. PLFs were also modified in the new rule.

While the above changes may eventually improve the capital position of the HECM portfolio, these improvements did not occur in FY 2017, nor will the year-end capital ratio incorporate the effect of these changes. As stated in last year's actuarial report, "[a] fiscal year's economic value calculation does not include the effect of endorsements in future fiscal years", and since these changes only went into effect on October 2 (after the 2017 fiscal year ended), the HECM portfolio as of September 30, 2017, will not contain any loans that were assessed the higher up-front premiums. That said, this year's actuarial report may still project that the future capital position of the fund in FY 2018 and beyond could improve as loans endorsed with the higher up-front premiums are added to the portfolio.

Will improvement in the FHA's MMI Fund result in a MIP cut?

If the capital ratio of the fund improves for another year and exceeds 3%, then there is a possibility that Secretary Carson will approve the reduction in annual MIPs

Clearly, if the capital ratio of the combined MMI Fund declines from last year's 2.32%, Secretary Carson is highly unlikely to allow the suspended 25bp MIP cut to go through. However, if the capital ratio of the fund improves for another year (as we expect) and exceeds 3%, then there is a possibility that Secretary Carson will approve the reduction in annual MIPs.

However, we believe that there are several factors that could still persuade Secretary Carson to keep the MIP cut suspended for some time. In testimony to the House Financial Services Committee on October 13, in response to a question regarding his thoughts on the 25bp MIP cut, the HUD Secretary stated that "I personally don't want to make the commitment in terms of either one of them right now, because we're so close to having an FHA commissioner". This suggests that the Secretary will want to at least wait until Brian Montgomery is fully confirmed by the Senate as the new FHA Commissioner before deciding whether or not to allow the 25bp MIP cut to go through.

As discussed earlier, the extensive hurricane damage to FHA-insured homes in Texas, Florida, and Puerto Rico may also argue against another MIP cut. Since the scale of the damage in these areas and the number of FHA-insured homeowners who will walk away from their loans because of damage to their properties is still unknown, Carson may want to wait until he has a better sense of the size of these claims before he will approve a MIP cut.

In addition, the HECM portion of the MMI Fund continues to weigh on the capital position of the total fund. As Carson mentioned in his House testimony, "we're doing some draining from the reverse-mortgage [portfolio], but we are doing a lot of putting into the fund from the other, indicating that the continued deterioration of the HECM portfolio or the prospect of a sustained negative capital position for the HECM portfolio could convince Carson not to cut MIPs.

Finally, Carson's background as an establishment Republican and conservative may make him reluctant to cut MIPs and expand the government's role in the housing market, even if the MMI Fund's capital position were to significantly improve in this year's report. He was a proponent of reducing HUD's budget for the 2018 fiscal year and generally prefers a reduced role for the government in the US mortgage markets. As he stated in his Congressional hearing earlier this month, "expanding community investment through public-private partnerships produces better results than heavy-handed government intervention". Allowing the 25bp MIP cut to go through would also likely negatively affect his relationship with other staunch conservatives, such as House Financial Services Committee Chairman Jeb Hensarling, who has advocated for increasing the MMI Fund's statutory capital ratio requirement to 4% from 2%.

If the HECM portfolio is removed from the MMI Fund, the probability of another MIP cut will increase

That said, if the HECM portfolio were to be removed from the MMI Fund's capital ratio calculation, then the probability of a 25bp MIP cut to FHA forward mortgages would increase considerably. In his comments to the House Financial Services Committee, Carson spoke favorably of moving the HECM program out of the MMI Fund or at least for creating new forecasting assumptions that would result in more capital stability for the program. As shown in Figure 5, without the negative capital position of the HECM portfolio, the MMI Fund would have had a capital ratio of 3.28% as of the end of FY 2016, and the fund would have a reasonably high probability of exceeding a 4% capital ratio at the end of FY 2017.

However, the inclusion of the HECM portfolio into the MMI Fund was a result of a provision in the Housing and Economic Recovery Act of 2008[7], which changed the funding source for the program from the General Insurance Fund to the MMI Fund. As a result, removing the HECM portfolio from the overall MMI Fund may require legislation, a substantial hurdle in the current political environment.

On balance, we do not expect another MIP cut for the next several months

On balance, we believe it likely that the 25bp MIP cut will remain suspended for another several months

Given the multiple factors that argue against another MIP cut, including waiting for a new FHA Commissioner to be confirmed and assessing the full extent of damage from Hurricanes Harvey and Irma, we believe it is likely that the 25bp MIP cut will remain suspended for at least another several months. If the capital position of the HECM portfolio were to somehow turn positive in this year's actuarial report or if the portfolio were to be removed from the overall MMI Fund's capital calculation, our expectations for another MIP cut could change. However, for now, we continue to believe that annual and up-front MIPs for FHA forward mortgages will remain stable for some time.

Limited implications on agency MBS from Walter's Chapter 11 filing

Last week, Walter Investment Management Corp, the ultimate parent company of Ditech (the pre-cursor to Green Tree Servicing), announced that it had entered into a restructuring support agreement (RSA) with a majority of its senior unsecured noteholders, whereby it will reduce its outstanding corporate debt by approximately $700mn to improve its financial position. The company also announced earlier this week that it had received the support of a super-majority of its senior lenders for a related RSA that would facilitate the restructuring. Under the RSAs, Walter will enter into a pre-packaged Chapter 11 reorganization in late November 2017 and will complete its restructuring by January 31, 2018.

We discussed the implications for agency MBS investors regarding a potential Chapter 11 filing for Walter Investment Management in *Prepayment Commentary: Speeds drop on daycount,* August 4, 2017. In our write-up, we stated that the primary implication for MBS investors was a slowdown in speeds if Ditech's mortgage servicing rights (MSRs) were to be transferred to a successor servicer. Since speeds on Ditech's conventional loans tend to be faster than that of the cohort, a transfer of the loans to a large bank servicer could eventually slow prepayments on the loans. In addition, a disruptive transfer of the servicing rights would also likely lead to a sharp one- to two-month drop in speeds.

However, a servicing transfer would only occur if the company either voluntarily chose to sell its MSRs to shore up its liquidity position, or if the GSEs declared that Ditech had breached its lender contract and forced the company to transfer its agency MBS servicing rights. Neither of these scenarios appears likely over the near future.

[7] See Housing and Economic Recovery Act of 2008, Sec. 2118 (a)(b)(2)

Under the terms of the RSAs governing the upcoming pre-packaged Chapter 11 filing, Walter's operating subsidiaries, including Ditech Financial and Reverse Mortgage Solutions, are expected to remain out of Chapter 11 and will "continue their operations in the ordinary course throughout the consummation of the financial restructuring transactions". As a result, it does not seem as though Walter intends to sell Ditech's servicing rights over the next few months. In addition, a forced transfer of the MSRs by the GSEs or Ginnie Mae, appears unlikely, as the senior lenders and noteholders would likely have demanded some assurance from Walter that the GSEs did not intend to pull the servicing rights away from Ditech in the near future before they would agree to the RSAs.

We believe that the near-term implications of Walter's Chapter 11 filing next month are limited for agency MBS investors

As a result, we believe that the near-term implications of Walter's Chapter 11 filing next month are limited for agency MBS investors. While buyout speeds on Ditech's Ginnie loans may decelerate as the servicer conserves cash, this has already been occurring for some time and the overall delinquency rate on Ditech's Ginnie loans is still fairly low. We also do not believe that the restructuring will have a significant effect on Ditech's prepayment speeds, since Ditech's servicing operations should be shielded from the filing.

UNITED STATES: MONEY MARKETS

Balance sheet normalization: Paper, plastic, and PayPal

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Abridged from Balance sheet normalization: Paper, plastic, and PayPal*, October 26, 2017*

The outstanding stock of paper money is the Fed's second largest liability. Its balance sheet normalization and the future level of bank reserves are tied to the demand for this innovation from the 18th century. In turn, this depends on the current and future interplay between how quickly US households adopt new payment technologies and overseas demand for the $100 bill.

- The domestic demand for currency is a function of the volume and type of household transactions.
- Unsurprisingly, GDP and household consumption are poor proxies for the demand for paper money – even for domestic holdings.
- Total US currency outstanding is $1.6trn and has grown over a 6% annual rate since 2010. Per capita US currency exceeds $4800 but the average American holds only $137 in cash.
- Estimates of offshore holdings range from 50% to 70% of the outstanding stock.
- The distribution of currency by denomination suggests offshore holdings are used as a store of value.
- Higher money market rates along with other payment technologies have not cooled the recent demand for paper currency.
- Debit cards are the most popular payment medium – accounting for nearly a third of all types of household monthly payments. Currency, the next most popular medium, however, still accounts for a 27% share.
- The adoption of non-bank electronic payment instruments – such as PayPal – is widespread.
- An increase in the use of online bill payment, debit cards together with non-bank payment vehicles, could delay the Fed's balance sheet normalization past 2023.

We take a closer look at "folding money." We explore reasons for the continued rapid growth in currency – growth that has exceeded nominal GDP since the financial crisis. We review estimates of holdings outside the US and consider the role of paper currency amid widespread adoption of safer and more efficient payment media.

DERIVATIVES STRATEGY

Longer tenor spreads to continue widening

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We expect the long-end spread widening trend to continue as the Fed balance sheet runs off and maintain our 10y swap spread widener. We are tactically taking profits on our 5s30s spread curve steepener.

Long-end swap spreads in the US began widening in mid-October, with 30y swap spreads currently at -29bp near the widest level they have reached since 2015. 10y spreads have widened from about -5bp to -2bp, and are at the higher end of the range for the year. The swap spread curve has also steepened, with 5s30s spread curve having steepened by nearly 5bp since the beginning of October (Figure 1). There are a number of factors driving longer-end spreads wider, in our view, and these are likely to stay in place over the medium term.

Hedging bias may be toward paying currently

The bias from hedging flows in the long end of the swap curve has likely been toward paying. Figure 1 shows the rate hedging bias of our VA hedging framework, which is based on the Greeks of a representative VA product rebalanced quarterly. The model suggests that the direction of the hedging bias from this source of hedging flow has been toward paying for more than a month now, and has likely intensified recently. The main reason for the intensification is the selloff in rates – long-end rates are now the highest they have been in H2 17, and equity markets continuing to make new highs has likely exacerbated this dynamic.

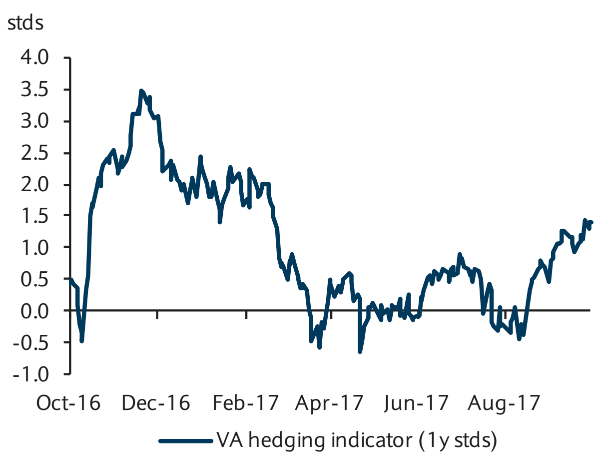
Similarly, there has likely been some widening in 10y swaps spreads that may have been caused by the extension in MB. The overhang from these hedging needs may persist in the near term, but Figure 2 suggests that the 5s30s spread curve reaction has been commensurate with the changes in potential hedging needs.

The Fed balance sheet runoff may be a spread widener in the long run

Second, we believe that the unwind of the Fed's balance sheet that begins this month is likely to eventually lead to demand for high-quality liquid securities such as Treasuries and MBS from banks to partially replace excess reserves (cash) that banks hold at the Fed, which will decline as a result of the Fed's balance sheet shrinkage.

FIGURE 1

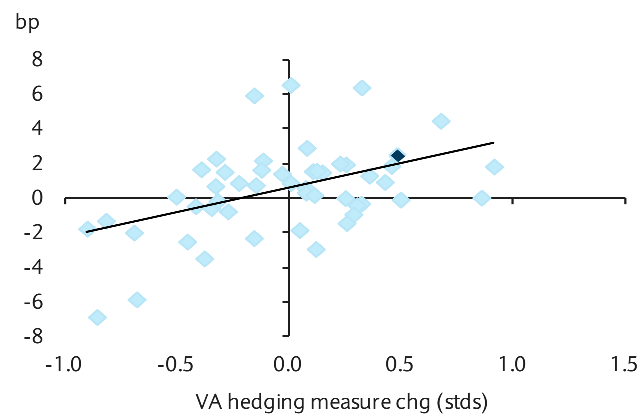
Our measure of VA hedging direction suggests that there is likely a paying bias from these types of hedgers currently



Source: Barclays Research

FIGURE 2

5s30s spread curve appears to have reacted appropriately over the past week



Source: Barclays Research

We outlined the dynamics of how this is likely to occur in *The Great Unwind: Implications for banks and rates market*s, October 2, 2017. Since cash held with the Fed is zero duration, any substitution into Treasuries or MBS for HQLA buffers will also likely to be done on a zero-duration basis, resulting in paying flows in swaps. The Fed's H8 data show that US bank holdings of Treasuries and agency MBS on a combined basis have been increasing at a particularly rapid pace (Figure 3).

There has been a persistent imbalance in the US swap market in longer tenors arising from natural receiving demand in the form of liability hedgers and hedging of corporate issuance, while there is a dearth of natural payers. As a result, 10y+ tenors are likely to be uniquely sensitive to any potential paying flow. The recent move in 10y and 30y spreads may partly be associated with the market already having begun to price some of these effects.

The question regarding the effects of the Fed's balance sheet run-off may have gained in significance of recent days, given the increased likelihood of Dr John Taylor being nominated to the Fed Chair – in the past, he has questioned the efficacy of a larger Fed balance sheet, and may favor a more aggressive pace for reducing the balance sheet than the status quo. A faster pace of a balance sheet runoff may mean that banks lose deposits at a faster pace, and may have to take greater asset side measures to boost their liquidity profiles.

5y spreads – Unchanged, but the dynamics are hidden

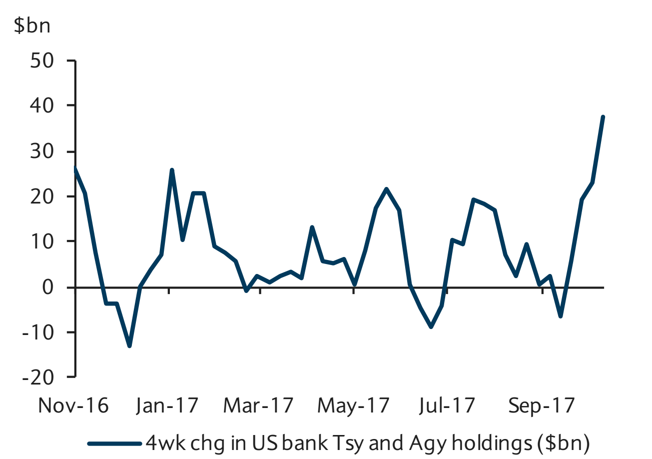
While 5y spreads in themselves have not moved much over the same period (with the current headline spread at 7.5bp nearly the same level as a month ago), the underlying dynamics have changed. Looking at 5y Libor –OIS spreads, it is clear that the trend has been toward narrowing (Figure 4).

One potential reason for this may be that issuance swapped to OIS may be slowing– as our Credit Research team has outlined (ee *3Q17 Supply Update: Heavy Lifting Done on TLAC Build-up*, October 3, 2017) issuance of longer-term debt by banks for TLAC purposes has slowed and is likely to slow further over the next year, given that most large US banks have met or are close to meeting their targets.

The market is likely to continue pricing funding pressures related to the Fed balance sheet runoff in the Libor-OIS forward curve, which naturally puts a floor on how much Libor-OIS can compress. As a result, there may be widening pressure on 5y swap spreads.

FIGURE 3

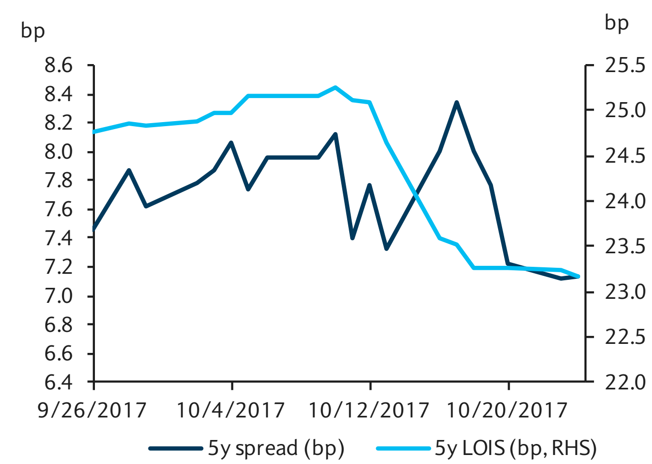
US domestic banks have been buying Treasuries and MBS at a greater pace over the past few weeks



Source: Federal Reserve H8, Barclays Research

FIGURE 4

5y swap spreads to Libor are unchanged, but 5y LOIS is tighter and 5y spreads to OIS are wider



Source: Barclays Research

Maintain 10y swap spread widener

Given the long-term dynamics, we maintain our recommendation to be long swap spreads. Our preferred point of expression for the view remains in the 10y sector. While 10y spreads have widened recently, they did not participate in the widening in June/July when the Treasury published its study on banking deregulation. Overall, we continue to believe that 10y and 30y spreads are likely to be 10-15bp higher than current levels over the next two years.

We are, however, taking profits our tactical recommendation to be in 5s30s spread curve steepeners (see *Derivatives Strategy*, September 14, 2017), given the steepening that has already occurred, the potential risks arising from 5y spreads widening, as well as tightening of 30y spreads, if the curve flattens and the long-end rallies.

EURO AREA: RATES STRATEGY

It is never a "taper"

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Despite ECB policy revision being broadly in line with consensus, Draghi projected a very careful tone, making the QE reduction announcement appear dovish. While the source of any Bund sell-off might not be the ECB in the short term, we think next week's Bank of England and new Fed Chair decisions are still a bearish risk. Therefore, we are keeping the short 10y Bund outright, reds/greens steepener and short 10y Netherlands ASW versus EONIA trades. We are also rolling our cheap technical hike trade from pay October 2018 to December 2018 EONIA, given the very front-end rally. And in EGBs, we are maintaining the long 3y BTP ASW as an attractive carry trade.

Bond markets have sold off notably in the past week, mainly led by the US and Gilt markets. The drivers have been the uncertainty associated with the new Fed Chair in the US and the strong Q3 preliminary data in the UK, which reinforced the rate hike expectations from Bank of England next week. Despite the weakness of the Treasury and Gilt market, Bunds reversed their sell-off from earlier in the week and rallied notably on the ECB meeting day.

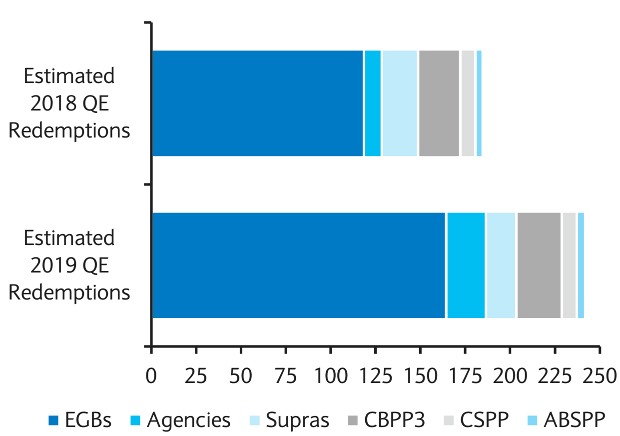
ECB: Draghi successfully delivered a consensus package dovishly

Draghi projected a very careful tone during the press conference that made QE reduction announcement come across as broadly dovish

The ECB policy revision announced this week was broadly in line with consensus expectations. However, Draghi projected a very careful tone (as is usually the case) during the press conference that made QE reduction announcement come across as broadly dovish. First, QE was extended at €30bn for nine months from January 2018 until September 2018. As we expected, the asymmetric forward guidance around it was also kept, indicating that the Governing Council (GC) stands ready to increase QE in terms of size and/or duration in case of a downside surprise to inflation and/or financial conditions. Second, the reinvestment of QE redemptions was also emphasized that it will continue for an extended period, which was also not new information. On the short rate path front, in line with consensus expectations, forward guidance and existing sequencing was kept unchanged. Lastly, fixed-rate full allotment on open market operations was extended until late 2019, which, in our view, does not have any rate market implications (for more see the Euro Money Market section).

FIGURE 1

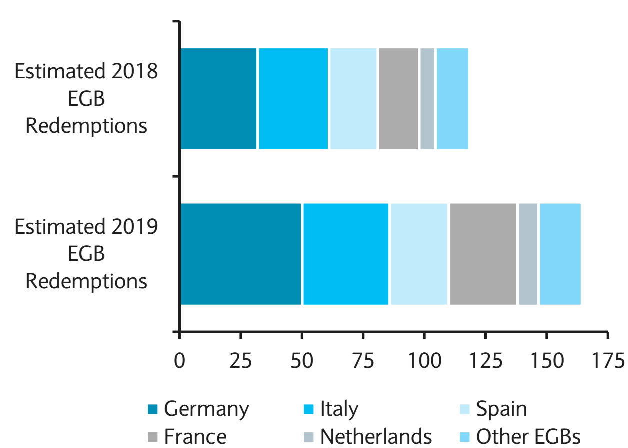
We estimate c.€15bn and c.€20bn QE redemptions in 2018 and 2019, respectively…



Source: ECB, Barclays Research

FIGURE 2

…with EGB redemptions led by Germany, Italy, France and Spain



Source: ECB, Barclays Research

FIGURE 3

EGB issuance, redemption and QE flow estimates for 2018 under the new QE plan

	Gross Issuance '18 (Forecast)	EGB PSPP Redemptions (Forecast)	Private Redemptions (Forecast)	Total Redemptions	Net Issuance '18 (Gross Issuance - Total redemptions)	Total Coupons	Net Cash Flow (Net Issuance - Total Coupons)	New QE Buying '18	Net Issuance post QE (Gross Issuance - Total redemptions - Net QE buying)
Germany	160	32	128	160	0	19	-19	41	-41
France	189	17	103	120	69	35	34	43	26
Italy	231	29	163	193	38	41	-3	41	-3
Spain	114	20	60	80	34	24	10	25	9
Belgium	40	3	27	29	11	10	1	8	3
Nether	44	7	34	41	3	6	-3	12	-9
Portugal	16	3	4	7	9	5	4	2	7
Finland	13	1	7	8	5	2	3	3	2
Austria	24	2	17	20	5	6	-1	7	-2
Greece	5	0	2	2	3	1	2	NA	NA
Ireland	11	2	7	9	2	4	-2	2	0
Slovakia	5	1	2	3	2	1	1	1	1
Total	852	117	554	671	181	154	27	185	-5

Note: * For 2018 total net QE buying is assumed to be €270bn (ie, nine months at a €30bn pace from January 2018).
Source: ECB, National Treasuries, Barclays Research

During the Q&A, Draghi mentioned that there was broad consensus on the open-ended nature of QE beyond September 2018, while some in the GC wanted to put an end date to it. He also highlighted that this is more of a downsizing of the programme rather than a "tapering" and that ECB never planned to stop the programme suddenly. We think that the open-ended nature of the programme is pitched mainly for risk management purposes, as well as managing the QE tantrum risk in the short term. If the economy keeps its momentum, we think that the ECB very likely intends to complete QE by September 2018 or deliver a quick tapering down to €0bn by end of 2018, especially given the programme constraints.

Technical details of the programme: Aiming for more transparency

There were a few technical aspects associated with successful execution of the QE programme that Draghi commented on. First, he mentioned that there will not be any specific changes in the asset composition of the programme. However, he indicated that CSPP will continue at a sizeable pace, which, in our view, means that it is likely to be used to offset any shortfalls in the CBPP3 and/or ABSPP than PSPP. Second, Draghi confirmed that ECB has no scarcity constraints in its programme for now and has enough flexibility if it needs to increase the size. Indeed, he confirmed that there was no discussion of a change in issue/r limits.

We expect roughly €15bn and €20bn per month QE redemptions in 2018 and 2019, respectively

The other area where GC decided to provide more transparency is the QE programme redemptions and their reinvestment policy as we expected. From 6 November, the ECB will announce estimated monthly redemptions on PSPP, CSPP, CBPP3 and ABSPP for a rolling 12-month period alongside historical redemptions. Reinvestments will be made in the same bond market of the redemption. While the reinvestments will be aimed to be done in the same month they fall due, they could be delayed to subsequent two months, depending on liquidity conditions.

Draghi also mentioned that reinvestments will be large and, therefore, relevant in the context of QE stock gaining more importance. Our estimations of the QE redemptions split among asset classes (EGBs, Agencies & Supras – PSPP; CBPP3, CSPP and ABSPP) are presented in Figure 1. We expect roughly €15bn and €20bn per month QE redemptions in 2018 and 2019, respectively, with about 80-85% coming from the PSPP programme. In EGBs, redemptions are led by Germany, Italy, France and Spain (Figure 2).

Trade ideas after the ECB meeting

The source of any sell-off in Bunds might not be the ECB, but it can still sell off next week on the back of hawkish surprises from Bank of England or the appointment of the new Fed Chair

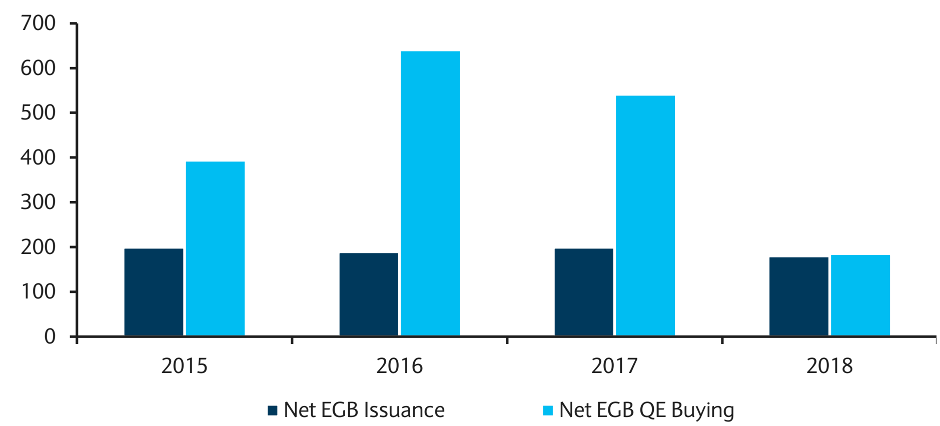
Duration reacted in a dovish way after the ECB meeting; however, we are maintaining our bearish trades, given our attractive entry levels. We think Bunds c.40bp are still on the expensive side. While the source of the sell-off might not be the ECB, we think Bunds can still sell off next week on the back of hawkish surprises from Bank of England or the appointment of the new Fed Chair. Therefore, we are keeping the short 10y Bund (entered at 39bp), reds/greens steepener (entered at 17bp) and short 10y Netherlands ASW versus EONIA (entered at EONIA – 14bp) trades.

After the short-end EONIA curve rally, we are also rolling out our pay October 2018 EONIA recommendation to December 2018 at c.32.5bp. We do not necessarily feel strongly that sequencing will change anytime soon. However, December 2018 is a long time away and the trade is a cheap option for the economy, especially inflation, gaining momentum with only c.2bp of potential downside.

In EGBs, we are keeping the long 3y BTP on ASWs (entered at +22bp versus Libor in BTP on October 20) on the back of a pinned front end by the ECB. With slowing supply into year-end (with especially Italy experiencing large redemptions in November of c.€40bn), the broadly dovish ECB and Italian Senate this week also approving the new electoral law, we think long front-end Italy has more room to perform as an attractive carry trade.

FIGURE 4

In 2018, net EGB issuance versus QE buying will be more balanced unlike the heavy QE displacement years of 2015-17



Source: ECB, National Treasuries, Barclays Research

EUROPE: MONEY MARKETS

The importance of the full allotment extension

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The extension of the fixed-rate full allotment procedure has no relationship with the ECB's strategy on policy rates but has a significant importance to be able to avoid the build-up of any liquidity risk premium on money markets rates. We expect a further extension beyond December 2019 to support banks in managing the big TLTRO liquidity redemptions in 2020/21 and we do not rule out the full allotment to become a permanent feature of the ECB monetary policy implementation framework because of the new liquidity regulation on banks.

Lower for longer QE

At its October meeting, the ECB's Governing Council (GC) extended its QE programme until September 2018 at the pace of €30bn per month after January 2018, and kept it open-ended. President Draghi highlighted the importance of the principal reinvestment activity "for an extended period of time after the end of its net asset purchases, and in any case for as long as necessary". The ECB did not change its QE forward guidance and the policy rates sequencing and, importantly, announced the further extension of the fixed-rate tender procedures with full allotment at the MRO and 3m LTRO "for as long as necessary, and at least until the end of the last reserve maintenance period of 2019" (mid- January 2020).

Fixed-rate full allotment extension

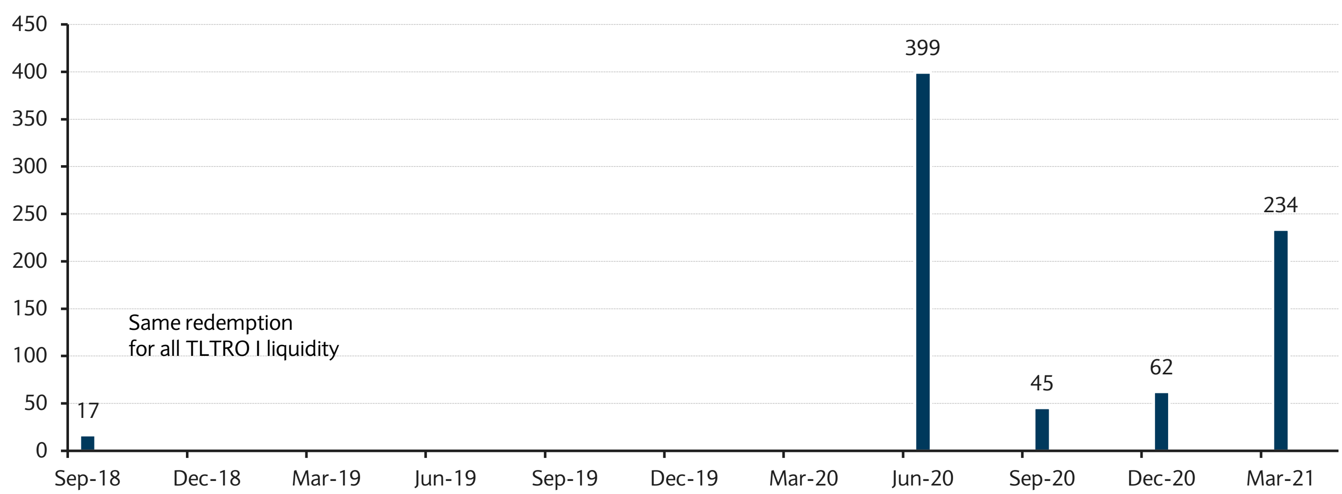
Full allotment is an important backstop to avoid any liquidity squeeze

The decision to extend the full allotment was because latest extension (decided in December 2015) is approaching its conclusion at the end of the December 2017 reserve period. We believe that despite the abundant excess liquidity (€1.8trn), the full allotment represents an important liquidity backstop in case of stress in the liquidity market and would prevent the formation of a liquidity risk premium in the money markets rates. Importantly, its extension has no relationship with the ECB's strategy on policy rates, as pointed out by the President Draghi during the Q&A. The ECB probably decided to maintain the two-year extension, as was the case of the previous announcement in December 2015.

A large part of borrowing is at the TLTRO, but the MRO is an important backstop for banks

About 97% of the current ECB borrowing is at the TLTRO, with only €5bn at the MRO and a total of €8bn at the 3m LTRO. The attractiveness of the two regular operations has clearly declined over the past few years because of the abundant excess liquidity and much cheaper

FIGURE 1
TLTRO redemption profile (€bn)



Source: ECB, Barclays Research

level of market borrowing rates. However, banks have continued to use the weekly MRO for precautionary reasons, especially during the periods of tension in the liquidity market, as it is usually the case at quarter-end. The latest episode of temporary increase in the MRO borrowing was at the beginning of October, when the weekly borrowing temporarily increased to €21bn, from €3bn. It is important to highlight that even if the liquidity is abundant, volumes in the interbank market - especially in the unsecured segment - are very low (as Eonia volumes at about €8bn signal), which makes it extremely difficult for banks to find big amount of cash in case of some unexpected increase in short-term liquidity needs or for precautionary reasons in anticipation of some possible temporary reduction in the availability of liquidity. Banks could use the marginal lending facility, but it is only overnight and much more expensive (refi rate + a spread) and could negatively affect market sentiment more than the MRO (stigma effect). Should banks compete at the weekly liquidity auction (in case of no fixed rate/full allotment), a sharp increase in volatility in the cost of liquidity would be very likely that might pass to the Eonia fixing. The consequent build-up of the liquidity premium would create a tightening of the funding conditions for banks. So, the extension of the full allotment is costless for the ECB, with the great benefit of avoiding any concerns of potential liquidity squeeze in case of worsening of market conditions.

The presence of the full allotment procedure operates similar to the one-week USD liquidity operation. Even if it is used very rarely and for a small amount, it is an important safety net in case of an increase in the market cost of USD liquidity borrowing and could contribute to avoid any market concerns about the availability of USD liquidity.

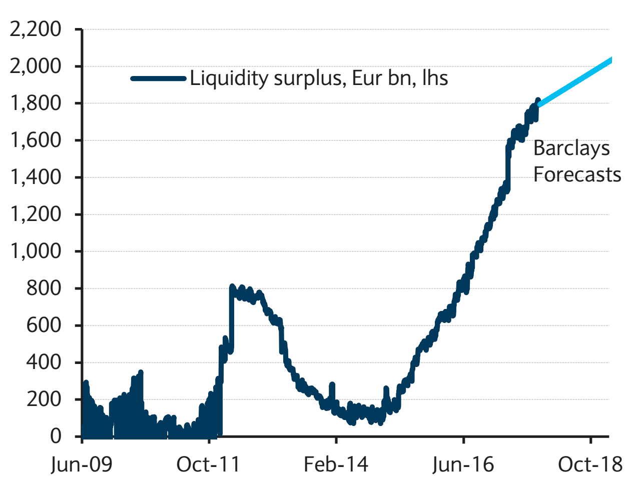
We expect a further extension beyond 2019 to cover the TLTRO II maturity period…

We expect a further extension of the full allotment beyond December 2019 to cover the period of the roll of the TLTRO and believe that it could become a permanent feature of the ECB's monetary policy implementation framework.

As shown in Figure 1, the next important liquidity event will be the redemption of the first TLTRO II operations with the first one - about €400bn maturing - in June 2020 and the last one - €230bn maturing – in March 2021. We expect banks to start repaying the operations - and possibly returning to the market for funding - when the residual maturity is less than one year as the NSFR value of the operation declines. However, we do not rule out that some banks will not be able to replace easily the TLTRO with market liquidity and, therefore, will need to maintain their ECB borrowing. So, to avoid a liquidity cliff, the ECB is likely to give banks the opportunity to roll the maturing liquidity into the weekly MRO (or into the

FIGURE 2

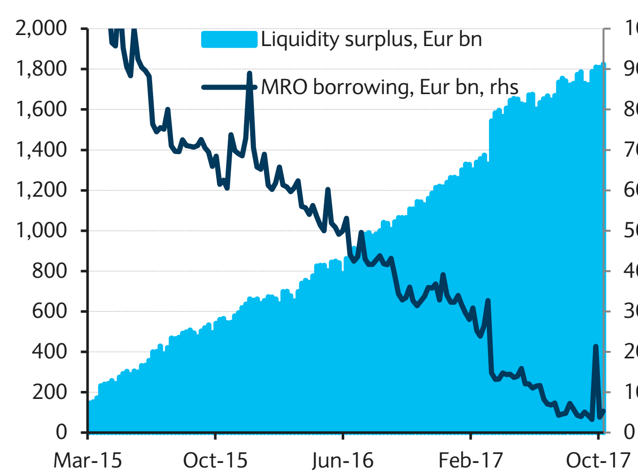
The liquidity surplus is likely to approach €2trn next year



Source: ECB, Barclays Research

FIGURE 3

MRO is an important liquidity backstop for banks thanks to the fixed rate full allotment procedure



Source: ECB, Barclays Research

monthly 3M LTRO viaintroduction of a bridge operation as the settlement day of the two operations do not coincide) or via the introduction of a new series of TLTRO. In both cases, the fixed rate full allotment procedure is likely to be maintained to favour a smooth roll.

…and we do not rule out the full allotment to become a permanent feature of the framework…

We do not rule out the full allotment to become a permanent feature of the ECB monetary policy implementation framework, as a consequence of the importance of the central banks' liquidity for banks under the post crisis liquidity regulation. In particular, the liquidity coverage ratio (LCR) requires banks to have a buffer of high quality liquid assets (HQLA)to be converted into cash to meet their liquidity needs under a 30-day period of severe funding stress. The possibility to have unlimited borrowing at the ECB operations posting HQLA assets as collateral would help banks meet their liquidity needs without creating any risks to the financial stability via the liquidation of the core assets in the market. Also, the possibility to transform non-HQLA securities (used as collateral at the ECB liquidity operations) into HQLA assets (central bank deposits) for the LCR purposes will remain in a context of full allotment.

QE extension and principal reinvestment

The liquidity surplus is likely to approach €2trn in 2018

With a total of €390bn of additional QE liquidity injection until the end of September 2018, the liquidity surplus should increase to about €2.1trn by the end of the program. Such an estimate does not consider the possible increase in autonomous factors, especially in banknotes, in the components of euro resident deposits in euro (mainly governments deposits) and the non-euro residents deposit in euro (mainly non-euro area central banks), that should absorb part of the excess liquidity (which is not easy to estimate). The reinvestment of the maturing APP bonds will avoid the decline in the balance sheet and excess of liquidity.

Eonia to stay at depo rate +5bp

With excess liquidity unlikely to move below €250bn (the threshold below which the Eonia fixing is sensitive to the changes in the liquidity conditions) in the next few years – unless the ECB introduces some liquidity drain operations - we expect the Eonia fixing to stay at depo rate +5bp. The Euribor fixings should stay at the current levels (3m Euribor at -33bp) with risks skewed to the downside, as the abundant liquidity in a low-rates environment should continue to support the "search for yields" that fuels downward pressure on unsecured rates

German GC rate to stay below the depo rate

In the repo market, the QE absorption of high-quality collateral via both the monthly net purchases and the principal reinvestment in the context of reduction in net supply (we expect zero net supply for Germany next year) and strong demand for core assets should exacerbate the collateral scarcity. If dealers' activity remains high, with more balance sheet dedicated to the repo business and the use of Eurosystem central bank securities lending keep increasing, richening pressure might moderate, keeping the core GC rates - especially those on German collateral - towards the middle/upper bound of the range (10-30bp below the depo rate), where we expect the very short-term German GC rate to trade in a context of collateral scarcity.

COVERED BONDS & SSAS

Liquidity, price-discovery and QE: A deeper look into EIB and KFW bonds

This is an extract from The AAA Investor*, 26 October 2017.*

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We take a deeper look at liquidity and pricing distortions in the € SSA market and find QE-driven pricing distortions have increased more in EIB than in KFW bonds, especially after the issue limit for supras was increased to 50%. We do not expect these distortions to subside in the near term, even if the volume of QE net asset purchases is reduced.

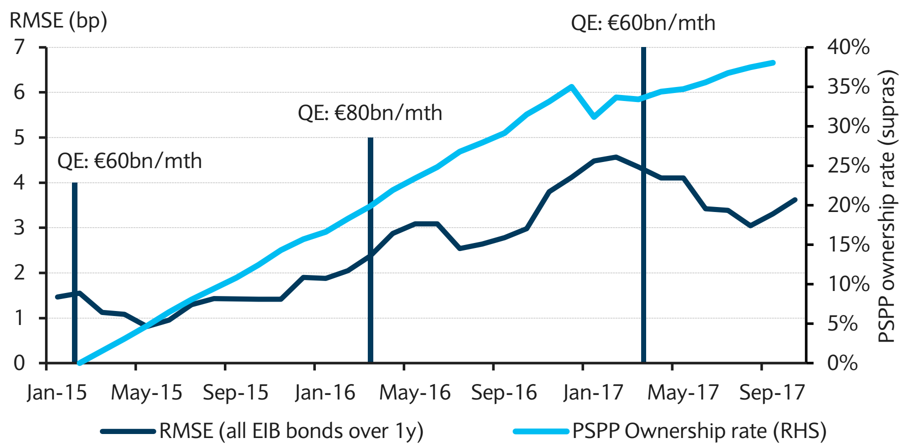
The market focus is firmly on the ECB decision today and more importantly any changes relating to its QE programme. The programme, which has been running in its expanded form since March 2015, has had, and will continue to have, a substantial impact on secondary liquidity and the price-discovery mechanism. We have long argued that the programme is detrimental to both, but without quantifying *to what extent*.

To answer this we update and enhance the liquidity analysis we presented in *The AAA Investor*, 20 July 2017, and the analysis on QE-driven pricing distortions discussed in *The AAA Investor*, 27 April 2017, albeit only focusing on EIB and KFW bonds in the latter.

The results of our analysis are as expected. First, the liquidity bifurcation is increasing and returning to its previous levels. Second, not only has the price-discovery mechanism been impaired, the level of distortions has increased notably, particularly in the case of EIB. Even if the ECB's net asset purchases were to be reduced further, as we expect, these distortions are likely to remain, given we expect redemptions (and hence, reinvestments) to increase next year, partially compensating for any reduction in net asset purchases.

FIGURE 1

QE-driven distortions are increasing: Development of root-mean-square-error of EIB bonds versus fitted curve and PSPP ownership rate of eligible supranational bonds



Note: RMSE = Root mean square error from fitted curve. Source: Barclays Research

Liquidity bifurcation, pricing distortions – It's all down to QE

In July, we represented a two-dimensional liquidity overview for major € SSA issuers[8] and found that, despite increased primary supply and turnover, liquidity was yet to show concrete signs of improvement. In addition, we found evidence that, based on the distribution of turnover, liquidity bifurcation was increasing, and returning to its previous levels. Since then, we have an additional three months of data to revisit our analysis.

YTD secondary turnover in € SSAs as at end-September was higher than for full year 2016

As at end of September, YTD secondary turnover stood at €444bn; already higher than that for the full year 2016 (€427bn; Figure 3). Part of this has been driven by increased supply, which at €158bn as at the end of September was nearly a third above of the level for the same period of 2016 and also more than the € SSA supply for the whole of 2016 (€136bn; Figure 2). Obviously, secondary turnover has been helped by QE activity but to a lesser extent than in 2016: we estimate that for EFSF, ESM and EIB, QE-related activity made up 21% of their YTD turnover, down from 32% in the same period of 2016. Intuitively, this was to be expected, as the ECB reduced the monthly net asset purchases of the programme in April. Importantly, despite the lower QE support, 2017 is the first year since 2013 (the first available data point) when secondary turnover in the € SSA market has not declined.

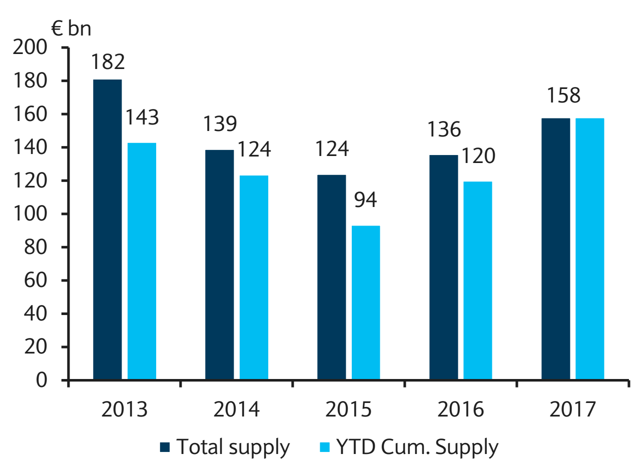
No major changes in top four most liquid issuers: EIB, KFW, EFSF and ESM remain the most liquid

Turnover ratio for RENTEN has more than doubled in Q3 17, although we expect this is mostly due to QE activity

Turning to our two-dimensional liquidity overview, not much has changed since Q2 17. Using a cross-section of the monthly turnover ratio and Barclays' Liquidity Cost Scores (LCS) the four largest issuers – EIB, KFW, EFSF and ESM – are also the most liquid (Figure 4). The most notable change among the top four issuers is that on both measures the EFSF's liquidity has improved slightly from June: its turnover ratio has increased by 2pp to 7.5% in September and LCS has declined (ie, improved) marginally by 0.008 to 0.187, although its LCS is still the highest among the top four issuers. Turning to other issuers, the most notable change between June and September 2017 has been in the turnover ratio for RENTEN. It has more than doubled from 3.9% in June to 8.4% in September; the highest among top 20 € SSA issuers. Part of this could be explained by supply – RENTEN issued a €1.25bn 8y bond in August, its third € bond this year – but we suspect this is more due to increased QE buying.

FIGURE 2

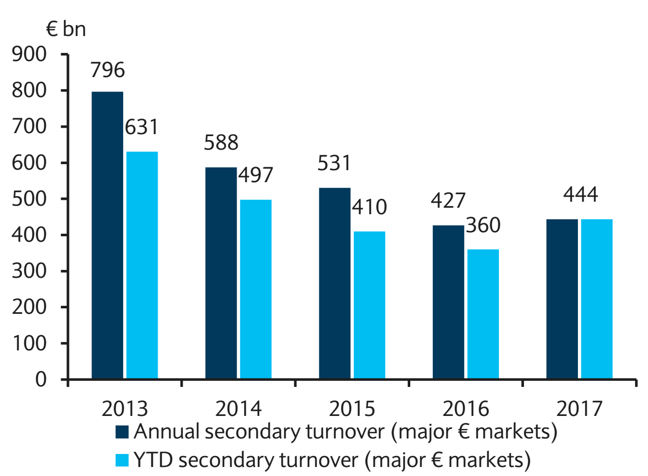
Supply: annual and cumulative YTD (up to September) primary issuance of € SSA bonds in the major SSA markets



Source: Bloomberg, Barclays Research

FIGURE 3

Turnover: annual and cumulative YTD (up to September) secondary turnover in € SSA bonds in the major SSA markets

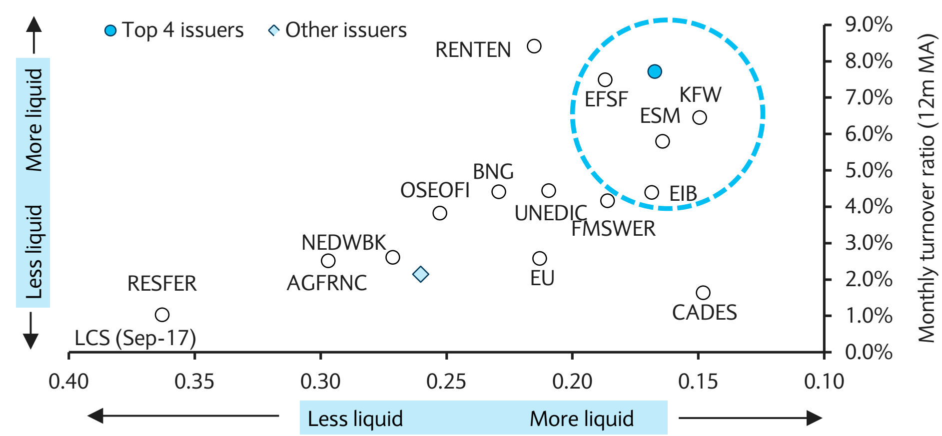


Source: TRAX, Barclays Research

[8] See *The AAA Investor: EUR SSAs: increased turnover, liquidity yet to improve*, 20 July 2017.

FIGURE 4

Major € SSA issuers: Two-dimensional liquidity overview (September 2017)



Note: Top issuers are EIB, KFW, EFSF and ESM. Source: TRAX, Barclays Research

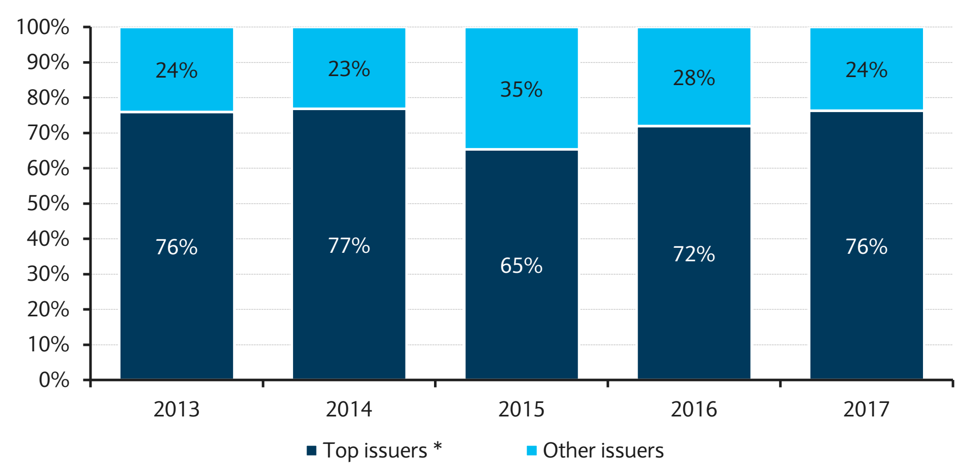
Similarly, liquidity bifurcation has continued to increase. As we argued in the June analysis, a crude but reasonably accurate measure for this is the development of the share of turnover represented by the top issuers. Since June, the share of top issuers of total turnover has increased from 74% to 76%, back in line with the highs reached in 2013-14 and more than 10pp up from the lows of 65% in 2015 (Figure 5). Part of this has been no doubt driven by increased € issuance by KFW and EIB as well as the EFSF, which increased its 2017 funding target by €9bn in June. Nonetheless, this represents a further concentration of turnover in the most liquid issuers.

Increasing pricing distortions

As we highlighted in the 19 October 2017 *AAA Investor*, some EIB bonds are trading through KFW, which fundamentally makes no sense, in our view. This is, in our view, driven by technical factors, most likely increased buying activity by PSPP, which can buy up to 50% of EIB bonds but "only" 33% of KFW bonds. These distortions can be easily seen from the credit term structures of both issuers, which show bonds widely dispersed around the curve after 3-4y. If we were to compare the current credit term structures of EIB and KFW to those in January 2015 (ie, before PSPP started) we can clearly see that pricing distortions have increased (see *AAA Investor*, 27 April 2017), but this does not answer the question of by *how much* the distortions have increased and *which issuer's curve has been distorted the most*.

FIGURE 5

Liquidity bifurcation in the € SSA market: Share of turnover (Top issuers* vs. Other issuers)



Note:* EIB, EFSF, KFW and ESM. Source: TRAX, Barclays Research

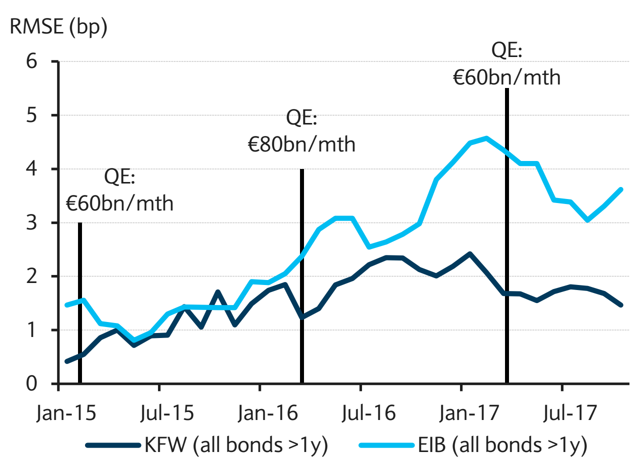
To answer this, we have calculated the root-mean-square-error (RMSE) for EIB and KFW bonds for each month-end since January 2015. This measure represents the standard deviation of the distances of each issuer's bonds to its respective fitted curve. In other words, it is a measure of accuracy quantifying how close or far the bonds sit from the issuer's fitted curve. We then created a time series from these measures for both issuers to see how the 'curve fit' has developed since the start of PSPP. For this calculation, we excluded bonds that have less than 1y to maturity as these bonds are not PSPP eligible. We acknowledge that the minimum PSPP maturity limit was changed from 2y to 1y in January 2017 but for simplification we have applied 1y limit through the analysis.

The results are in line with our expectations. Not only have the distortions increased since PSPP started but they have also become more pronounced in EIB bonds (Figure 6). The difference in the respective RMSEs for EIB and KFW started rapidly increasing after April 2016. Recall, this is when monthly net purchases for the QE programme were increased to €80bn and, more importantly, the issue limit for supranationals was raised to 50%. The divergent trends are particularly visible in the 5-10y bonds (Figure 7). The reduction in the monthly net asset purchases from April 2017 provided some relief for both issuers, but for EIB bonds this proved to be short-lived. The distortions in EIB bonds have started to increase again (while they have continued to decline in KFW bonds), most likely reflecting their increased scarcity. In fact, the level of distortions in EIB bonds steadily increases in line with the increase in estimated PSPP ownership of PSPP-eligible supranational bonds (Figure 1).

Even if net asset purchases were to be reduced further, as we expect, these distortions are likely to remain, given that we expect PSPP supra redemptions (and hence, reinvestments) to increase next year, partially compensating for any reduction in net asset purchases. Next year a total of €53.1bn of PSPP-eligible supranational bonds mature, mostly concentrated in April (€12.6bn), July (€11bn) and October (€14.8bn). As at the end of September 2017, we estimate that PSPP owned 38.1% of all PSPP-eligible supranational bonds. If the same ownership rate applies to the eligible bonds maturing in 2018, this implies c.€20bn of additional PSPP supranational purchases next year in the form of reinvestments. Given that the EFSF and ESM have a lower aggregate funding target for 2018 than this year (€45bn vs €61.5bn) and the fact that ESM plans to issue some of this in dollars (one to two benchmark deals with size of $2-3bn), PSPP will have to rely more on EIB bonds. Therefore, these distortions are likely to remain elevated, even if the monthly QE net asset purchases are reduced, provided that the ECB maintains the share of supranationals as 10% of total PSPP purchases.

FIGURE 6

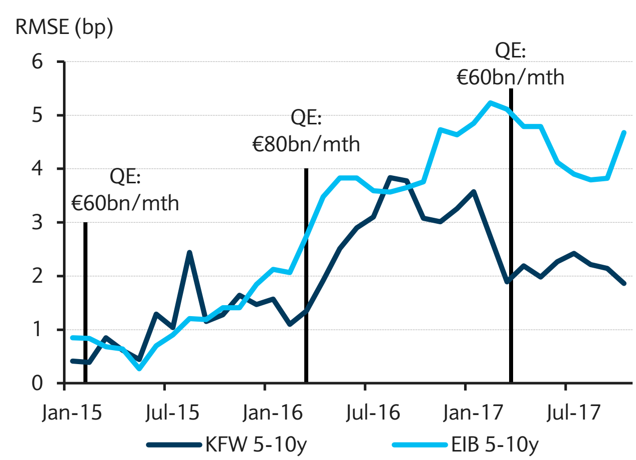
EIB and KFW: Development of RMSE during the various stage of ECB's QE programme (all bonds with >1y to maturity)



Source: Barclays Research

FIGURE 7

EIB and KFW: Development of RMSE during the various stage of ECB's QE programme (5-10y bonds)



Source: Barclays Research

INFLATION-LINKED MARKETS: EURO AREA

Implications of the new BTP Italia

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The announcement of November's BTP Italia issuance seemed to weigh on the 6y sector BTP€is initially. However, it is not obvious to us whether BTP€is will be negatively affected. In our view, the dynamics will depend on reinvestment flows, in particular from institutional investors, from the redemption of the BTP Italia November 2017.

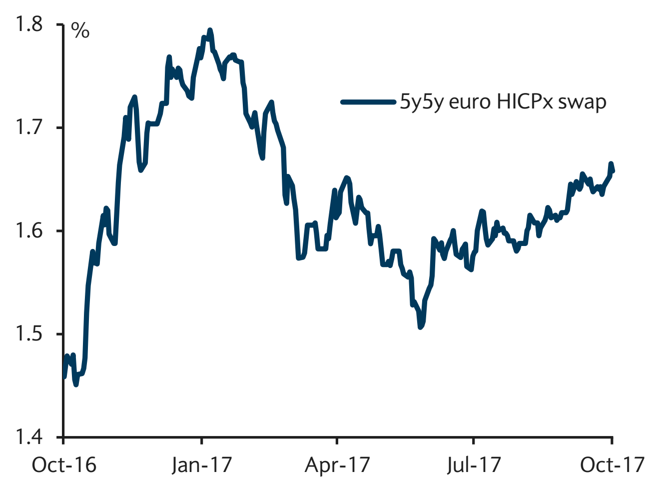
Thursday's ECB policy meeting outcome and press conference was in line with general expectations, with APP extended for a further nine months at a reduced monthly pace of €30bn/month. There were no other changes to interest rates or to forward guidance. Following the press conference, breakevens closed slightly lower, on average, on the day. The cheapening was, in our view, essentially beta-driven as nominals rallied, rather than in reaction to the ECB announcement. Overall, breakevens have performed well lately, with the 5y5y euro HICPx swap breaking above 1.65% and holding on above that level. The richening in peripheral breakevens in particular has been notable since it occurred despite the Spanish and Italian nominal rally.

Upcoming BTP Italia issuance: Unclear implications for BTP€is

New issuance will coincide with redemption of over €18bn

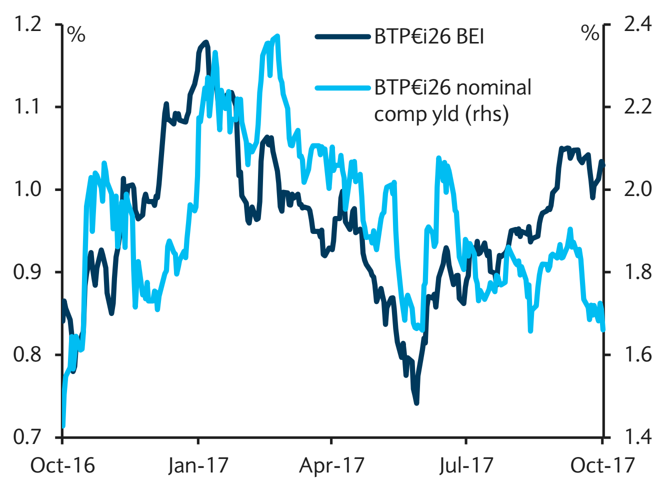
The coming month and rest of the year is set to be relatively uneventful for the euro area inflation market. While there were expectations for a new 30y BTP€i by the end of the year, this now seems to be a very remote possibility before 2018. We only expect routine taps from all issuers in terms of inflation-linked EGBs. That said, the launch of the new 6y BTP Italia mid-November could be very relevant for the dynamics in the BTP€i market. The launch will coincide with the redemption of the BTP Italia November 2017, which was issued for more than €22bn, the largest BTP Italia issuance so far. The amount outstanding is now just over €18bn, which is significant. It is reasonable to assume that a large part of the amount redeemed will probably find its way into the new BTP Italia, especially for retail investors. However, it was apparent that the BTP Italia November 2017, similar to the two previous issues, was very large due to significant buying from institutional investors, too. In response, for subsequent issues (from 2014), the Tesoro changed the issuance mechanism, with one specific day reserved for institutional investors. An allotment mechanism was also introduced for institutional investors from October 2014.

FIGURE 1
5y5y euro HICPx has been on a bullish trend since June



Source: Barclays Research

FIGURE 2
Italian BEIs firm lately despite nominal rally



Source: Barclays Research

Level of guaranteed coupon likely to determine appetite from institutional investors

Unlike retail investors, we believe institutional investors are less likely to automatically reinvest redemption monies into a new BTP Italia. Their reinvestment behaviour will tend to take into account relative valuations between the new BTP Italia (the guaranteed minimum annual real rate/coupon will be communicated on 10 November) and BTP€is/BTPs in the 6y sector. As a result, while the BTP€i23 and BTP€i24 cheapened further on the BTP Italia announcement last week, it is not obvious to us whether BTP€is in that sector will necessarily be penalised from a flow perspective; if the guaranteed coupon on the new BTP Italia does not offer relative value, it may well be that institutional investors choose to reinvest in similar maturity BTP€is or BTPs.

UNITED KINGDOM: RATES STRATEGY

Long day's journey into hike

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We expect the MPC to hike for the first time in 11 years next week. We expect Governor Carney to say that this is the first hike in a gradual cycle – which the market has yet to fully price. The more guarded views of Deputy Governors Sir David Ramsden and Sir Jon Cunliffe, perhaps owing to more pessimistic views on Brexit, may mean that any pricing of cycle could be subsequently reversed, so we recommend GBP 2/5s, 18m fwd steepeners.

MPC expected to hike by 25bp at its November meeting - the first hike in the Bank rate in 11 years

The November MPC meeting is widely expected to have the first rise in the Bank rate since July 2007 when the MPC raised its policy rate by 25bp, to 5.75%. The first estimate of Q3 17's GDP beat expectations, coming in at 0.4% q/q (consensus and Barclays +0.3 q/q) underpinned by a solid contribution from the services and manufacturing sectors. It is worth noting that in the past when the MPC had chosen to tighten the policy rate, quarterly GDP growth was around 0.7% q/q. But if the MPC now views trend growth as being lower than in the pre-crisis period, and it is becoming increasingly more concerned about the erosion of slack within the economy, then, clearly, the hurdle to hike is materially lower than in previous episodes.

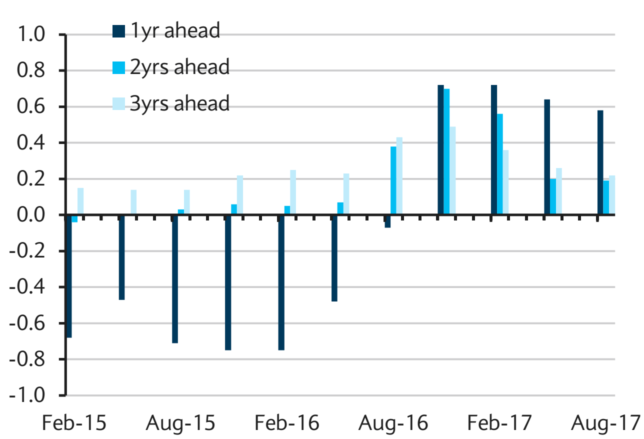
The tightening bias is underpinned by a lower growth assumption and a view that slack within the economy has been largely eroded

The MPC's medium-term inflation forecasts have been continually above the 2% target

It is this view of the progressive erosion of slack and lower trend growth that lies at the heart of the hawkish MPC view. Simply, this view expects that if the economy is growing at close to or above trend, then the risks to higher inflation are progressively increasing and that would leave medium-term inflation incompatible with the 2% CPI target. We see this in Figure 1, which compares the difference in the Bank's IR projections for inflation based on prevailing market rates at the time of the MPC decision and the 2% target. We see that while the "inflation gap" (ie, the difference between the 2% target and projected inflation at the 1-3yr horizon) at the 1yr horizon has been volatile, the Bank has consistently forecast a medium-term overshoot. So, if the MPC is concerned about the reduced output gap and medium-term inflationary pressure, a move higher in rates is justified. Aside from the GDP data, the median wage growth in the closely watched ASHE Survey for the continually employed is estimated at 3.4% y/y albeit weaker than in 2016's 4.6% y/y (Figure 2).

FIGURE 1

MPC consistently has had inflation overshoot in 2-3yrs (pp)



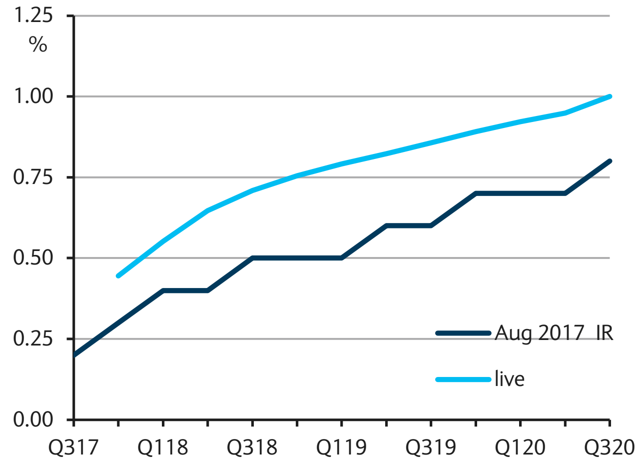
Source: Bank of England, Barclays Research

FIGURE 2

Median wage growth for employed remains strong (% y/y)

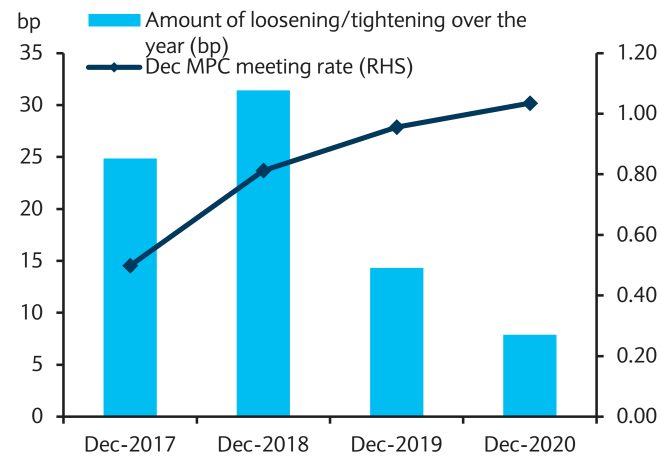
Source: Office for National Statistics ASHE Survey 2017

FIGURE 3
Market Bank rate profile vs Aug IR profile (%)



Source: Bank of England, Barclays Research

FIGURE 4
Higher rates but only one further hike by end 2018



Source: Barclays Research

We expect Governor Carney to not present a November move as "one-and-done" rate hike but rather as the beginning of a cycle

While the rate path in Nov is higher than Aug, the market has yet to price a faster pace of tightening with only one hike priced for 2018 and less than one further priced over 2019-20

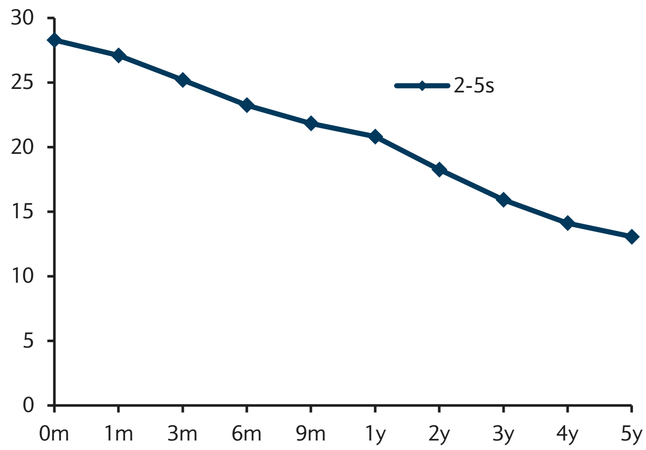
If the GDP data make a November hike a done deal, the question becomes how much further is the MPC willing to go? Committee members have been adamant that a November hike is more than just a reversal of a portion of August 2016's response to the EU referendum and would be quick to point out that the stock of monetary stimulus remains substantive. To deliver a November rate hike and communicate it as a "one-and-done" move would, in our view, be a tacit admission that the August 2016 rate cut to 0.25% was a mistake. In previous communication, MPC members have been adamant that it was not and that the August 2016 package helped stabilise the economy. We think that the IR press conference will be more upbeat while warning over medium-term inflationary pressures. Governor Carney, while retaining the language of a gradual and shallow rate cycle, will not close the door on further tightening beyond November, in our view. Figure 3 shows the rate profile currently compared to that used in the August IR forecasts. The former is the profile that will condition the forecasts published in the inflation report. While the level of rates is 15-25bp higher across the curve for 2018, the shape of the curve has not materially changed. This implies that the short end, while pricing in a higher policy rate, is not pricing in a material acceleration in terms of a rate cycle. Figure 4 shows that while the market in now pricing a full 25bp in tightening by the end of this year, it only has one further hike priced for 2018 and, even by the end of 2020, does not have a further 25bp hike priced. We think it unlikely that the one hike currently priced in for Q4 18 can be wholly priced out unless the MPC does not deliver a hike next week – which would be a considerable turnaround, given expectations.

The reluctance to price a cycle reflects both differing views from MPC speakers and the possibility of a policy mistake should the MPC be wrong on a "smooth Brexit"

In our view, this reticence to price a cycle reflects two separate factors: firstly, the differing degrees of enthusiasm for tightening from MPC members and, secondly, a growing belief that the MPC may be on the verge of a 'policy mistake'. To the first point, we think that the market should regard it as significant that the two MPC members who have sounded most cautious about rate tightening are Deputy Governors Cunliffe and Ramsden. Both have a background in HM Treasury and a greater degree of in depth knowledge of the process of leaving the EU than other MPC members: DG Ramsden from his position as Chief Economist at HM Treasury where he oversaw the Treasury's pre-Referendum analysis and DG Cunliffe, from his previous position as the UK Permanent Representative to the European Union and Prime Minister's Adviser on European Issues. Tacitly, their more circumspect stance might reflect a more pessimistic view on the outcome of Brexit than the central MPC scenario where it has been assumed on average there would be a "smooth" outcome. Related to this is the second point of a 'policy mistake'. While the first estimate of Q3 17 GDP surprised to

FIGURE 5

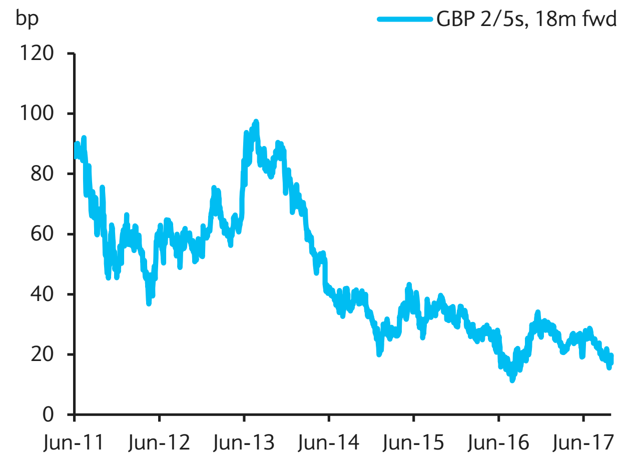
GBP 2/5s term structure (bp)



Source: Barclays Research

FIGURE 6

GBP 2/5s, 18m fwd close to multi-year lows



Source: Barclays Research

the upside, coincident high-frequency economic indicators suggest that there is a softening of data. Thus, while a hike might be begrudgingly priced by a sceptical market, it has yet to price a material rate cycle. To do so may well need further verbal impetus from Governor Carney in his press conference remarks as he would have to highlight upside risks to the MPC's inflation view.

While the market may be forced to price more for 2018, the risks of "hard Brexit" should see the forward curve steepen

If Governor Carney is more insistent on the pricing of a cycle and dissent for November rate hike is limited to the two deputy governors, then the market may well find itself faced with the prospect of a central bank resolute in wanting to deliver a tightening cycle, and we would expect the front end to come under pressure. However, if the Ramsden/Cunliffe view of a more difficult Brexit process proves to be correct, then we expect the forward term structure to reflect prospects of a reversal of any tightening that the MPC might look to deliver over the next 12-18 months. Figure 5 shows the term structure of GBP 2/5s in spot and forward space. We see that the term structure is inverted, so paying the spread in the forward space is a positive rolldown trade. From positive rolldown perspective, the rolldown on the forward spread 1yr fwd is 8bp over 1yr while 2yrs forward is +3bp over one year. Forward starting steepeners in 1-2yr fwd space would benefit also from an adverse Brexit outcome, prompting a reversal/easing policy bias from the MPC. Therefore, we recommend entering GBP 2/5,18m fwd steepeners currently at +17bp. The historical lows over the past year has been +15.6bp and the rolldown over 1yr is +7bp. We place a stop at +11bp and an initial target of 35bp.

We recommend GBP 2/5,18m fwd steepeners which roll positively and are far enough forward to have some protection from pricing a more aggressive near term MPC

JAPAN: RATES STRATEGY

Japanese investors' foreign currency funding and short-term USDJPY basis

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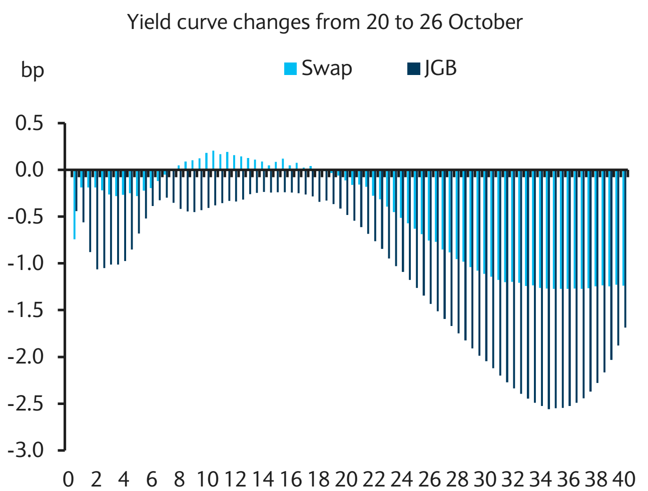
In recent years, USDJPY basis movements during both widening and tightening phases have been more pronounced than with other currencies. The behaviour of Japanese investors is a factor behind this. The accelerated portfolio rebalancing under Abenomics from 2013 led to a rapid widening of basis through end-2016, while changes in the structure of foreign currency funding and the more cautious stance on overseas investment since the US presidential election led to the relatively rapid tightening of USDJPY basis thereafter. Here we provide an overview of the foreign currency funding conditions and investment trends of depository institutions and life insurers – two important participants in the short-term foreign currency funding market – then consider the outlook for the short-term USDJPY basis market going forward.

This week: Bull-flattening in JGBs

JGB curve bull-flattens this week

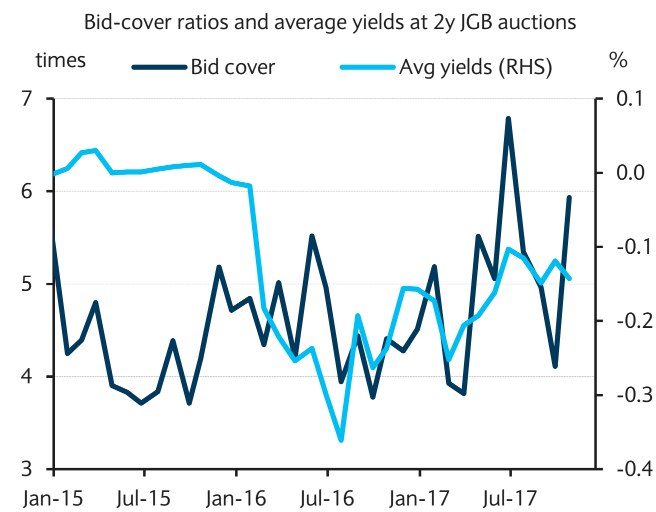
This week saw the JGB market bull-flatten (Figure 1). The LDP's sweeping victory in the lower house election on 22 October strengthened expectations for Abenomics to remain intact for longer, pushing the Nikkei to new highs while reducing political uncertainty and thereby fueling buying pressure around the superlong end of the JGB market. The 5-30y sector flattened by 1.3bp. JGBs outperformed swaps around the superlong end. In equities the Nikkei surged by 1.3% from last Friday to a close of 21740 on Thursday. USDJPY basis was largely unchanged (see this week's topic below). We see a risk of further bull-flattening in the short term with 1) buying pressure strengthening around the long end this week on mounting expectations for current monetary policy to remain intact for longer on the back of lower house election results, and 2) UST 10y yields hovering around this fiscal year's upper bound (eg, exceeding 2.4%) on elevated uncertainty around the next Fed chair. We close our 15-30y JGB steepener recommendation. However, we continue to expect a steepening bias in the medium/long-term sectors in light of supply-demand structures by sector (eg, BoJ purchases, investor demand). We believe the 15-20y sector will remain firm on strong demand for the sector's carry under YCC, while the 30y sector tends to remain

FIGURE 1
JGB curve bull-flattens



Source: Barclays Research

FIGURE 2
2y auction clears smoothly



Source: MoF, Barclays Research

sluggish due to limited demand from life insurers, the biggest investor in that sector, and the small size of BoJ purchases relative to new issuance.

No problems at the liquidity enhancement auction and 2y auction

Tuesday's liquidity enhancement auction for 15.5-39y issues cleared smoothly. Also, Thursday's 2y auction (JN382) produced decent results with a lowest accepted price of 100.485 (-0.141%), slightly exceeding the Bloomberg median forecast of 100.475 (-0.136%), and a bid-cover of 5.93, the highest since June 2017 (Figure 2). With the lower house election reducing political and monetary policy uncertainty, this week saw many investors start to move with a view to buying.

Next week: Focus on BoJ MPM, November bond-buying plans, 10y auction

Next week's focus

Next week brings a BoJ monetary policy meeting (30-31 October), the BoJ's bond-buying plans for November (31 October) and a 10y auction (1 November). Data releases include the September industrial production (31 October). The BoJ is scheduled to hold buying operations for 1-5y issues on 30 October. Overseas, headlines around the next Fed chair, along with the FOMC (1 November), the BoE's MPC (2 November) and US October employment data (3 November) will be in the spotlight.

We expect the BoJ to stand pat at the 30-31 October MPM

At the MPM, we expect current policy to remain intact by a majority vote. Indeed, we believe the current stance is likely to remain intact for some time, assuming the LDP's sweeping victory in the lower house election on 22 October increases the likelihood of BoJ Governor Kuroda being reappointed at the end of his current term. In the quarterly Outlook Report to be released at the end of the meeting, we expect the BoJ to lower its current CPI forecasts (1.1% for FY17 and 1.5% for FY18) another notch. One focus will be whether Policy Board member and QE advocate Kataoka, who dissented at the previous MPM, will propose further easing in his favoured policy area (see *BoJ MPM preview*, 25 October 2017).

We expect the BoJ to leave its JGB purchasing ranges unchanged across all sectors in November

In its bond-buying plans for November, we expect the BoJ to leave its JGB-purchasing ranges unchanged across all sectors (Figure 3). In its latest operations, actual purchase sizes were near the median of the October ranges except in the -1y and 1-3y sectors, suggesting the BoJ has ample room to respond to market fluctuations in either direction. In the 1-3y sector, 2y yields have been controlled at around -0.10%~-0.15% and there is ample room to reduce even within the October range, suggesting the BoJ does not have a strong need to surprise

FIGURE 3

We expect JGB buying ranges to be unchanged in November

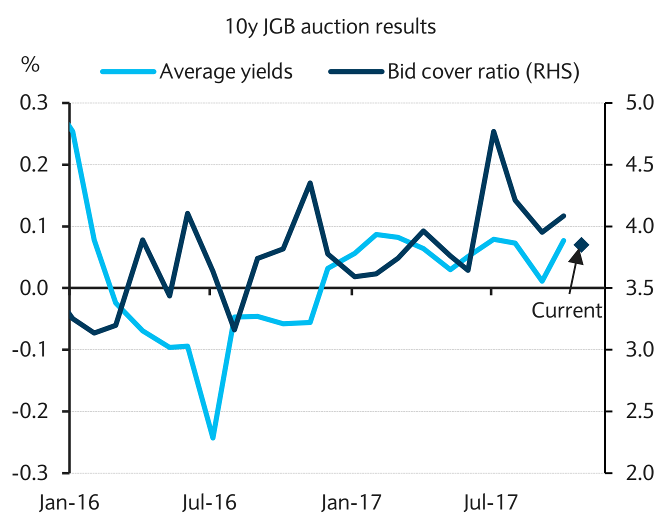
BoJ's JGB buying operation plans

(JPYbn)	Sep	Oct	Current	Nov
0-1yr	50-150	50-150	70	50-150
1-3yr	200-300	200-300	280	200-300
3-5yr	250-350	250-350	300	250-350
5-10yr	350-550	300-500	410	300-500
10-25yr	150-250	150-250	200	150-250
25-40yr	50-150	50-150	100	50-150

Note: November is a Barclays forecast. Source: BoJ, Barclays Research

FIGURE 4

We expect 10y auction to clear smoothly at current levels



Source: MoF, Barclays Research

with any changes to that range. In our view, the one area that could be subject to change is the -1y sector, where the entire range might be revised lower so that the latest purchase size of JPY70bn becomes the median.

We expect decent results at the 10y auction

We expect the 10y auction to clear smoothly. Current yield levels (0.065% as of 26 October) are largely unchanged from the average at the previous auction (0.077%), suggesting that valuations are not particularly rich and that a collapse is unlikely (Figure 4). Assuming the lower house election results strengthened the possibility of current monetary policy remaining intact for longer, we believe yield levels around 6-7bp should spur a certain level of demand.

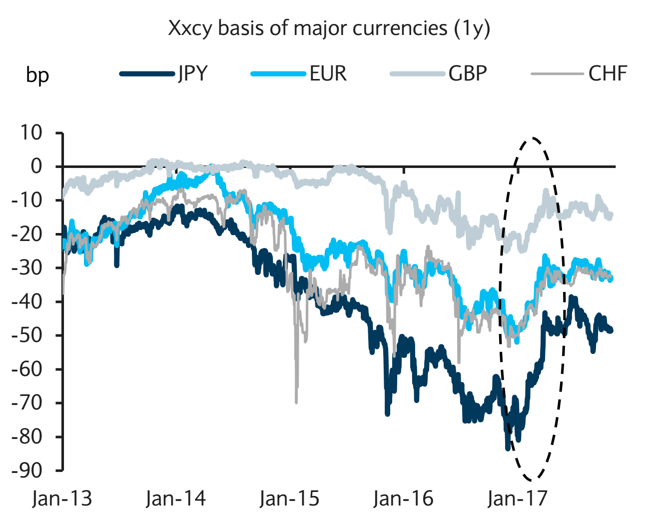
This week's topic: Japanese investors' foreign currency funding and short-term USDJPY basis

Considering the outlook for the short-term USDJPY basis market based on the foreign currency funding and investment trends of banks and life insurers

Short-term USDJPY cross currency basis began to tighten as a trend after bottoming in November 2016. Since March 2017, 3m basis has been trading around the -20~-50bp range, holding steady at tighter levels than in the previous year (Figure 5). As with the simultaneous basis tightening in other currencies, this appears to reflect factors on the USD side (eg, an easing of USD supply constraints due to deregulation)[9]. However, USDJPY basis movements during both widening and tightening phases have been more pronounced than with other currencies in the recent years. The behaviour of Japanese investors is a factor behind this. The accelerated portfolio rebalancing under Abenomics from 2013 led to a rapid widening of basis through end-2016, while changes in the structure of foreign currency funding and the more cautious stance on overseas investment since the US presidential election led to the relatively rapid tightening of USDJPY basis thereafter. Although the FX swaps of Japanese investors surged in 2015-16, they topped out around JPY120trn from mid-2016, helping to alleviate further widening pressures in basis (Figure 6). Here we provide an overview of the foreign currency funding conditions and investment trends of depository institutions and life insurers – two important participants in the short-term foreign currency funding market – then consider the outlook for the short-term USDJPY basis market going forward.

FIGURE 5

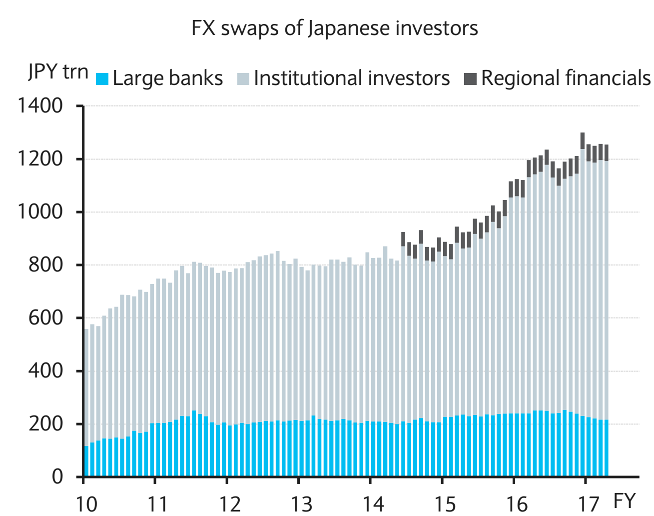
USDJPY basis has ranged since tightening at the start of the year



Source: Bloomberg, Barclays Research

FIGURE 6

Uptrend in FX swaps of Japanese investors takes a breather



Note: Individual banks, Japan Post Bank, Norin Chukin Bank, Shinkin Central Bank, individual life insurers.
Source: BoJ Financial System Report, Bloomberg, Barclays Research

[9] *Japan Portfolio Rebalancing Update: Shift to cautious and selective stance*, 3 August 2017

Foreign currency funding and asset investment of Japanese banks: Diversification of foreign currency funding

Foreign currency funding by banks shifts from market funding to customer deposits

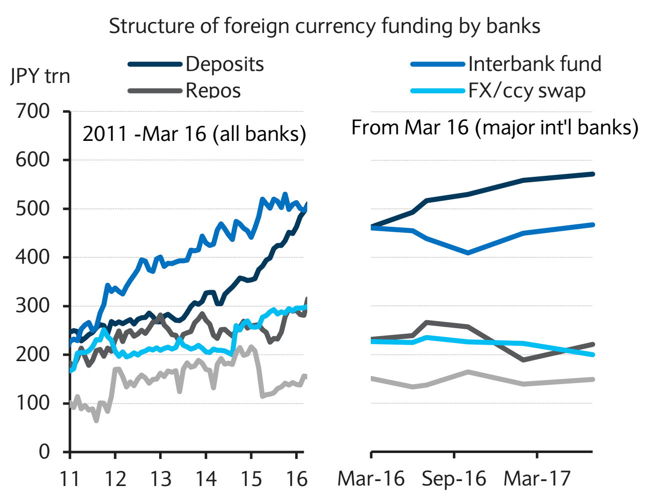
Foreign currency funding by banks grew primarily in the area of interbank funding (eg, CP/CD issuance) from 2012 to 2015, but this decreased sharply with the US MMF reforms of October 2016. Meanwhile, customer deposits have continued to show strong growth since 2014 (Figure 7). Although the BoJ's Financial System Report (FSR) indicates that interbank funding has also recovered since the passage of MMF reforms, an increase in direct CP/CD purchases by end investors has contributed to this. More recently, there has been a slight shift from FX swaps to repo, which may have served to ease the pressure in basis. Looking at changes in the structure of foreign currency funding over the past several years (up USD76bn since end-FY15), we see an especially sharp increase in customer deposits (up USD109bn), along with smaller increases in non-CP/CD interbank funding (up USD37bn) and corporate bonds (up USD21bn), but sharp decreases in FX swaps (down USD27bn) and CP/CD issuance (down USD31bn). Dependence on market funding is trending downward with customer deposits now accounting for a dominant 35% of foreign currency funding versus less than 20% in 2010.

Foreign bond investment by banks slower than before

Next, we consider asset investment by banks in order to project their foreign currency funding demands. Investment into foreign bonds by Japanese banks peaked in mid-2016 and is currently showing slower momentum than before (Figure 8). Although some major banks have started to rebuild their exposure to foreign bonds after sharply reducing it, risk-taking in foreign bonds appears to have been curbed overall. We believe this is attributable primarily to: 1) many banks taking a cautious stance on foreign bond investment in FY17 after sustaining heavy losses in H2 FY16; and 2) an outlook for stricter conditions around foreign bond holdings with the introduction of IRRBB regulations for international banks in March 2018 and domestic banks in March 2019. With the Barclays Japanese investor survey for H2 FY17 (conducted 5-12 October) indicating a weak appetite for investment in overseas assets, especially foreign bonds, amid a strengthening outlook for rising global yields, Japanese banks may continue to limit their risk-taking in foreign bonds[10].

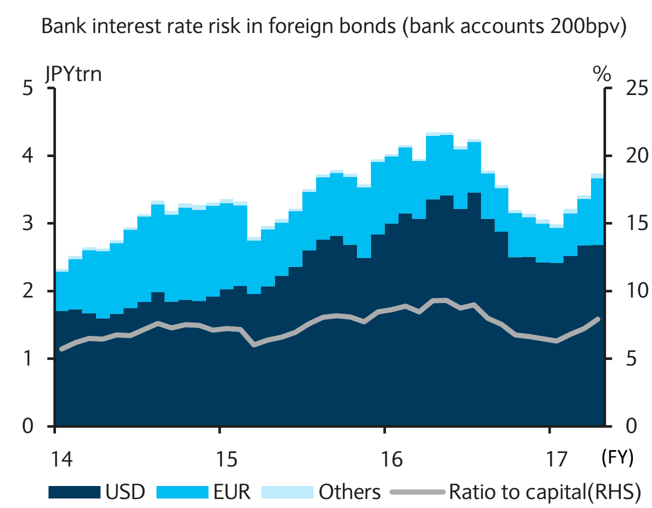
In terms of other asset classes, JGB investment by Japanese banks has fallen since peaking in 2012 and remains at depressed levels (Figure 9). As evident from the pursuit of carry under YCC, however, banks have become less cautious toward such investment with some

FIGURE 7
Continuing shift to deposits in foreign currency funding of banks



Source: BoJ (Financial System Report, speech of Deputy Governor Nakaso in February 2017), Barclays Research

FIGURE 8
Foreign bond investment of banks peaks in mid-2016



Source: BoJ, Barclays Research

[10] *Japan Rates Strategy: Clear shift from foreign assets to Japanese equities*, 12 October 2017

Risk-taking in JGBs also likely to remain sluggish…

perhaps opting to put funds into JGBs rather than parking it in BoJ current accounts, where they earn zero interest on excess reserves in the macro add-on balance. That said, the ultra-low interest rate environment in Japan means risk-taking in JGBs, like that in foreign bonds, is likely to sluggish.

…but banks could invest more aggressively in equities on expectations for Abenomics to remain intact for longer

In equities (including equity ETFs, excluding foreign equities), banks sharply reduced their risk in July 2017 (Figure 10). While holdings based on book value are roughly neutral relative to changes in risk, the drop in volatility has led to a decrease in equity risk. Interest in equities among overseas investors has strengthened again on expectations that Abenomics will continue for longer following the ruling coalition's victory in the lower house election on 22 October. In October, the Nikkei reached a 21-year high and has continued to climb higher. As the Goldilocks scenario in global markets continues, we believe Japanese equities still have plenty of upside on the back of: 1) a strong earnings environment for Japanese companies; 2) cheap valuations relative to other major equity markets; and 3) tight supply and demand backed by the BoJ's qualitative easing[11]. Our Japanese investor survey shows that banks are taking a more aggressive stance toward Japanese equities amid strengthening expectations for JPY depreciation. Now, given the outlook for Abenomics to remain intact for longer, we believe they will more aggressively invest surplus funds into equities (including equity ETFs), where they have capacity for risk.

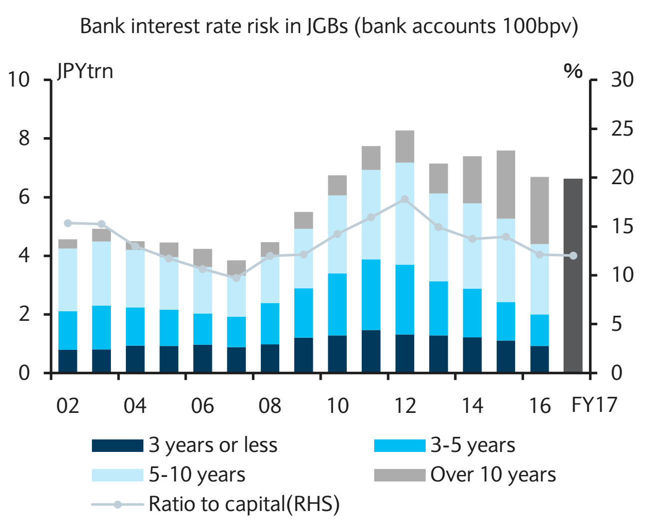
Life insurer investment plans: Foreign bond/credit-centered investment to continue

H2 FY17 investment plans of life insurers confirm a foreign bond/credit-centered investment stance

Major life insurers have announced their investment plans for H2 FY17 (Figure 11). With 30y JGB yields remaining below levels eyed by most investors (1%), they have largely continued to focus on foreign bonds and credit[12].

FIGURE 9

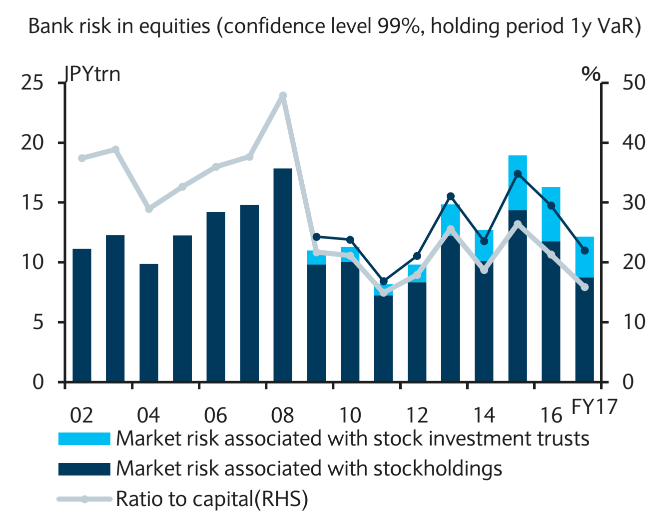
JGB investment at depressed levels



Source: BoJ, Barclays Research

FIGURE 10

Equity risk exposures currently falling



Source: BoJ, Barclays Research

[11] *Market Strategy Japan: Reasons for Japanese equity rally to continue*, 20 October 2017
[12] *Market Strategy Japan: Japanese foreign bond investment dynamics*, 12 May 2017

FIGURE 11

Major life insurers still aggressive on non-FX-hedged foreign bonds

	H2 FY17 investment plans of major life insurers					
				Foreign bond holdings (JPY bn, end-Jun 17)	H2 FY17 USDJPY outlook	
	Domestic equities	Domestic bonds	Foreign securities		End	Range
Nippon	Flat	Flat; curb investment in JGBs under low yields; target 20-30y yields of 1% for investment; increase credit investment	Curb FX-hedged foreign bonds after frontloading in H1; put most new funds into non-FX-hedged foreign bonds and some in foreign equities; increase combined balance of FX-hedged/non-hedged foreign bonds; plan to increase foreign equities, including alternative investments	14,846	110	100-120
Daiichi	Control balance depending on share price levels	Reduce, with decrease in JGBs, increase in credit, etc.	Unlikely to accumulate FX-hedged foreign bonds but depends on rates; plan to increase non-FX-hedged foreign bonds but depends on FX rates; increase foreign equities	8,627	115	100-125
Sumitomo	Flat; increase balance when cheap, sell some when prices rise	Flat; still curb investment in superlong bonds; increase credit investment	Increase; increase foreign currency industrial bonds, especially US corporate bonds; consider non-FX-hedged foreign bonds to USDJPY levels of 110; gradually introduce multi-asset and PE funds	8,080	115	100-120
Meiji Yasuda	Flat	Flat; consider buying if yields rise	Accumulate non-FX-hedged foreign bonds, especially when JPY appreciates; accumulate FX-hedged foreign bonds when superior to total returns of JGBs	6,540	115	101-121
Taiyo	Flat for now	Curb investment given domestic/overseas rate environment; selective stance in credit considering spreads, etc.	Plan to increase; allocations focused on credit	1,751	-	-
Fukoku	Flat with focus on replacement (increased by JPY10bn in H1; plan to decrease by JPY10bn in H2)	Reduce by JPY30bn	Increase by JPY20bn, especially in non-FX-hedged foreign bonds; diversify into non-USD currencies; increase foreign equities by JPY40bn	1,429	-	-
Mitsui	Flat	Reduce by several 10s of bns of JPY; continue credit investment; look yo reinvest in superlong bonds at yields above 1%	Increase non-FX-hedged foreign bonds by JPY150-200bn to offer foreign currency products; keep FX-hedged foreign bonds flat, but accumulate (esp. EUR) foreign credit	1,330	113	108-118
Daido	Increase domestic and foreign equities by JPY40bn or more (with more than half in domestic equities)	Flat; one-third in 40y JGBs; one-third in munis/HY bonds; one-third in 5-12y credit	Increase; continue to lower FX hedge ratios	1,016	115	107-117
Asahi	Plan to increase byJPY10bn, as planned at start of FY	Reduce by JPY90bn, as planned at start of FY	Increase foreign bonds by JPY50bn; accumulate foreign credit as planned at start of FY; lower FX hedge ratios to about 85% from near 90% at end-H1	667	-	-

Source: Reuters, Bloomberg, life insurer disclosures, Barclays Research

Given the outlook for a further rise in USD funding costs on the back of Fed rate hikes, life insurers remain under pressure to reduce their FX hedging ratios from the elevated 75% seen at end-FY16 (Figure 12; brisk sales of foreign currency insurance products at some life insurers have also contributed).

Life insurers could turn more aggressive in such non-FX-hedged foreign bond investment during phases of JPY appreciation, potentially underpinning the USDJPY on moves toward the low end of the projected range (below 110). We expect the USDJPY to remain in the range seen since last spring (around 108-114) until around the start of 2018 due in part to expectations for US tax cuts. In the absence of aggressive risk-off moves, we believe there should be a relatively firm floor around 110. In considering FX-hedged foreign bonds, life insurers will likely make a comparison with JGBs. As shown in Figure 12, FX-hedged 10y USTs have lost their superiority over 20y JGBs (ie, no economic reason to pay any further hedging costs from the viewpoint of carry alone), leaving life insurers to choose either FX risk or credit risk in USD assets. On the other hand, returns on FX-hedged European assets remain attractive, suggesting the shift into European bonds is likely to continue.

Also diversifying into other assets

Many insurers are diversifying into other currencies with the rise in USD funding costs. Life insurer investment plans are consistent with the findings of our Japanese bond investor survey in that they show a reduction in FX hedging ratios and an aggressive stance toward credit investment, while indicating a somewhat more aggressive stance toward foreign bonds. This may indicate that life insurers maintain a more aggressive investment stance focused on non-FX-hedged foreign bonds than other investors such as pension funds, which have already largely finished their rebalancing, and banks, which face difficulty in taking much FX risk. Amid the outlook for worsening returns on FX-hedged foreign bonds on the back of Fed rate hikes, we expect life insurers to continue to invest in foreign bonds while reducing their FX hedging ratios and partially shifting into European bonds with lower hedging costs[13].

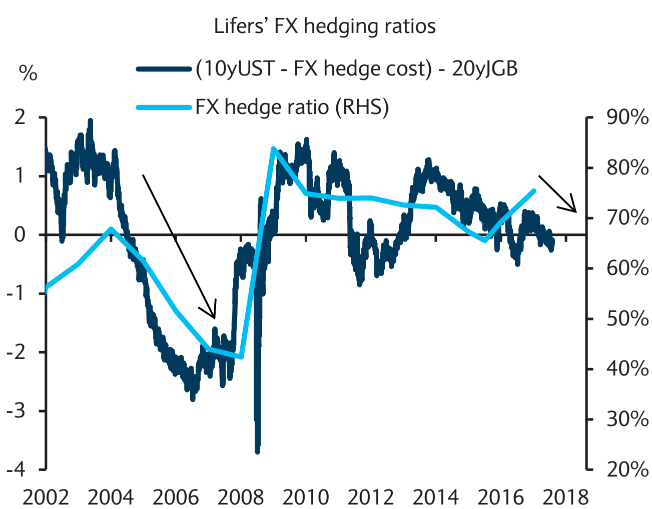
Market impacts: Short-term basis to tighten again after some seasonal widening into year-end

We expect 3m USDJPY basis to tighten again after some seasonal widening into year-end

In light of the above, we find it difficult to expect short-term USDJPY basis to widen sharply due to Japanese investor flows. Banks have curbed their foreign bond investment and diversified their foreign currency funding and we believe life insurers are likely to shift from FX-hedged to non-FX-hedged foreign bonds. Indeed, the room for basis widening is likely already limited by the outlook for hedging costs through FX forwards (US-Japan interest rate spread + basis) to rise due to anticipated Fed rate hikes. Also, the lengthening of hedging periods (eg, from 3m to 6m), as witnessed this summer, could continue. Of course, there is a tendency for 3m-6m spreads to invert due to seasonal widening pressures led by the short maturities in Q4[14] (Figure 13). As a result, we believe 3m USDJPY basis is likely return to the high end of the range seen since last spring (around -30bp) after some seasonal widening led by the short-term sector from mid-November runs its course. We believe the tightening of basis is likely to impact negatively on short-term JGB demand through USD ASW. The risk to this outlook is if balance sheet constraints on the USD supply side strengthen again.

FIGURE 12

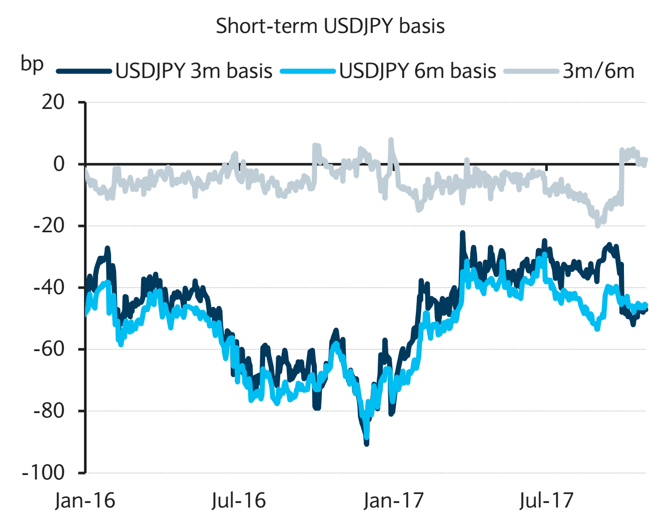
FX hedging ratios continue to fall



Note: Assumes 3m USDJPY forward hedge.
Source: Life insurer disclosures, Bloomberg, Barclays Research

FIGURE 13

Short-term basis tightens after seasonal widening at year-end



Source: Bloomberg, Barclays Research

[13] *Japan Portfolio Rebalancing Update: Japanese lifers accelerate their move away from ALM*, 25 September 2017
[14] *Barclays Japanese Investor Survey: Clear shift from foreign assets to Japanese equities*, 12 October 2017

GLOBAL SUPPLY CALENDAR

	Country	Bond	Coupon	Maturity	Size - bn
Euro Area					
30-Oct-17	Italy	7yr CCT Auction (EUR 3-3.5bn)	FRN	15-Apr-25	3.50
30-Oct-17	Italy	5yr BTP Auction (EUR 2-2.5bn)	0.90%	01-Aug-22	2.50
30-Oct-17	Italy	10yr BTP Auction (EUR 2-2.5bn)	2.05%	01-Aug-27	2.50
Nov-17	Italy	New 20y BTP			4.00
02-Nov-17	Spain	5y SPGB		30-Apr-23	1.50
02-Nov-17	Spain	10y SPGB Auction	1.45%	31-Oct-27	1.50
02-Nov-17	Spain	15y SPGB Auction	2.35%	30-Jul-33	1.00
02-Nov-17	France	10y OAT		25-Nov-27	5.00
02-Nov-17	France	20y OAT	1.25%	25-May-36	3.00
07-Nov-17	Austria	RAGB Auction Cancelled			
07-Nov-17	Germany	Inflation Linked Auction			0.50
08-Nov-17	Germany	5y OBL Auction		07-Oct-22	3.00
09-Nov-17	Ireland	20y IRISH Auction	1.70%	15-May-37	1.00
13-Nov-17	Italy	3yr BTP Auction			2.75
13-Nov-17	Italy	7y BTP Auction	1.45%	15-Nov-24	2.25
13-Nov-17	Italy	15yr BTP Auction	2.45%	01-Sep-33	0.75
14-Nov-17	Netherlands	10y DSL Auction (2-3bn)		15-Jul-27	3.00
14-Nov-17	Germany	New 2y Schatz Auction		13-Sep-19	5.00
15-Nov-17	Germany	10y Bund Auction	0.50%	15-Aug-27	3.00
15-Nov-17	Portugal	5y PGB Auction	2.20%	17-Oct-22	1.00
15-Nov-17	Portugal	10y PGB Auction	4.125%	14-Apr-27	0.50
16-Nov-17	Spain	3y SPGB	0.05%	31-Jan-21	1.50
16-Nov-17	Spain	5y SPGB		30-Apr-23	1.50
16-Nov-17	Spain	10y SPGB	1.45%	31-Oct-27	1.50
16-Nov-17	France	3yr FRTR	0.00%	25-Feb-20	2.50
16-Nov-17	France	5yr FRTR		25-Nov-22	4.00
16-Nov-17	France	OATi/ei Auctions			1.50
20-Nov-17	Belgium	10y BGB Auction	0.80%	22-Jun-27	1.50
20-Nov-17	Belgium	16y BGB Auction	3.00%	22-Jun-34	1.00
20-Nov-17	Belgium	20y BGB Auction	1.45%	22-Jun-37	1.00
22-Nov-17	Germany	30y Bund Auction		15-Aug-48	1.00
27-Nov-17	Italy	BTPei			1.00
29-Nov-17	Italy	7yr CCT Auction		15-Oct-24	1.50
29-Nov-17	Italy	5yr BTP Auction		01-Aug-22	2.50
29-Nov-17	Italy	10yr BTP Auction		01-Aug-27	2.50
29-Nov-17	Germany	5y OBL Auction		07-Oct-22	3.00
Japan					
01-Nov-17	Japan	10y JGB Auction			2300
07-Nov-17	Japan	Liquidity Enhancement Auction (1-5y)			200
09-Nov-17	Japan	30y JGB Auction			800
14-Nov-17	Japan	5y JGB Auction			2200
16-Nov-17	Japan	20y JGB Auction			1000
21-Nov-17	Japan	Liquidity Enhancement Auction (5-15.5y)			550
28-Nov-17	Japan	40y JGB Auction			500
30-Nov-17	Japan	2y JGB Auction			2200
UK					
Nov-17	UK	New 30y Linker Syndication	0.125%	10-Aug-48	4.00
09-Nov-17	UK	6y Gilt Auction	0.75%	22-Jul-23	2.75
16-Nov-17	UK	10y Gilt Auction	1.25%	22-Jul-27	2.50
21-Nov-17	UK	9y Linker Auction	0.125%	22-Mar-26	1.20
US					
07-Nov-17	US	3y Note Auction			24
08-Nov-17	US	10y Note Auction			23
09-Nov-17	US	30y Bond Auction			15
16-Nov-17	US	10y TIPs Auction			11
21-Nov-17	US	2y FRN Auction			13
27-Nov-17	US	2y Note Auction			26
27-Nov-17	US	5y Note Auction			34
28-Nov-17	US	7y Note Auction			28

Note: Shaded cells are unconfirmed Barclays estimates. Source: Barclays Research

GLOBAL BOND YIELD FORECASTS

US Treasuries							
%	Fed funds	3m Libor	2y	5y	10y	30y	10y BE
Q4 17	1.25-1.50	1.63	1.60	1.95	2.30	2.85	1.75
Q1 18	1.25-1.50	1.68	1.75	2.05	2.40	2.90	2.00
Q2 18	1.50-1.75	1.85	1.85	2.10	2.40	2.90	2.10
Q3 18	1.50-1.75	1.93	1.90	2.10	2.40	2.90	2.20

US swap spreads				
bp	2y	5y	10y	30y
Q4 17	20	10	0	-30
Q1 18	20	15	5	-25
Q2 18	20	15	10	-20
Q3 18	20	15	10	-15

Euro government (Germany) bond yield							
%	Deposit Rate	3m Euribor	2y	5y	10y	30y	10y BE
Q4 17	-0.40	-0.33	-0.60	-0.15	0.55	1.30	1.20
Q1 18	-0.40	-0.33	-0.55	-0.10	0.60	1.35	1.20
Q2 18	-0.40	-0.33	-0.50	-0.05	0.65	1.35	1.30
Q3 18	-0.40	-0.23	-0.45	0.00	0.75	1.35	1.40

Euro area swap spreads				
bp	2y	5y	10y	30y
Q4 17	45	45	40	35
Q1 18	40	40	35	30
Q2 18	40	40	35	30
Q3 18	40	40	35	30

UK government							
%	Bank rate	3m	2y	5y	10y	30y	10y BE
Q4 17	0.50	0.57	0.55	0.90	1.40	2.00	3.10
Q1 18	0.50	0.58	0.60	1.00	1.45	2.05	3.10
Q2 18	0.50	0.58	0.65	1.05	1.55	2.10	3.15
Q3 18	0.50	0.58	0.65	1.05	1.55	2.10	3.15

UK swap spreads				
bp	2y	5y	10y	30y
Q4 17	45	30	-10	-30
Q1 18	47	30	-12	-30
Q2 18	47	30	-15	-30
Q3 18	49	32	-17	-32

Japan government							
%	IOER	3m Libor	2y	5y	10y	30y	10y BE
Q4 17	-0.10	0.00	-0.15	-0.10	0.05	0.90	0.40
Q1 18	-0.10	0.00	-0.10	-0.05	0.10	0.95	0.40
Q2 18	-0.10	0.00	-0.10	-0.05	0.10	0.95	0.40
Q3 18	-0.10	0.00	-0.10	0.00	0.15	1.00	0.45

Japan swap spreads				
bp	2y	5y	10y	30y
Q4 17	15	20	20	0
Q1 18	15	20	20	0
Q2 18	15	20	20	0
Q3 18	15	20	20	0

Source: Barclays Research

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